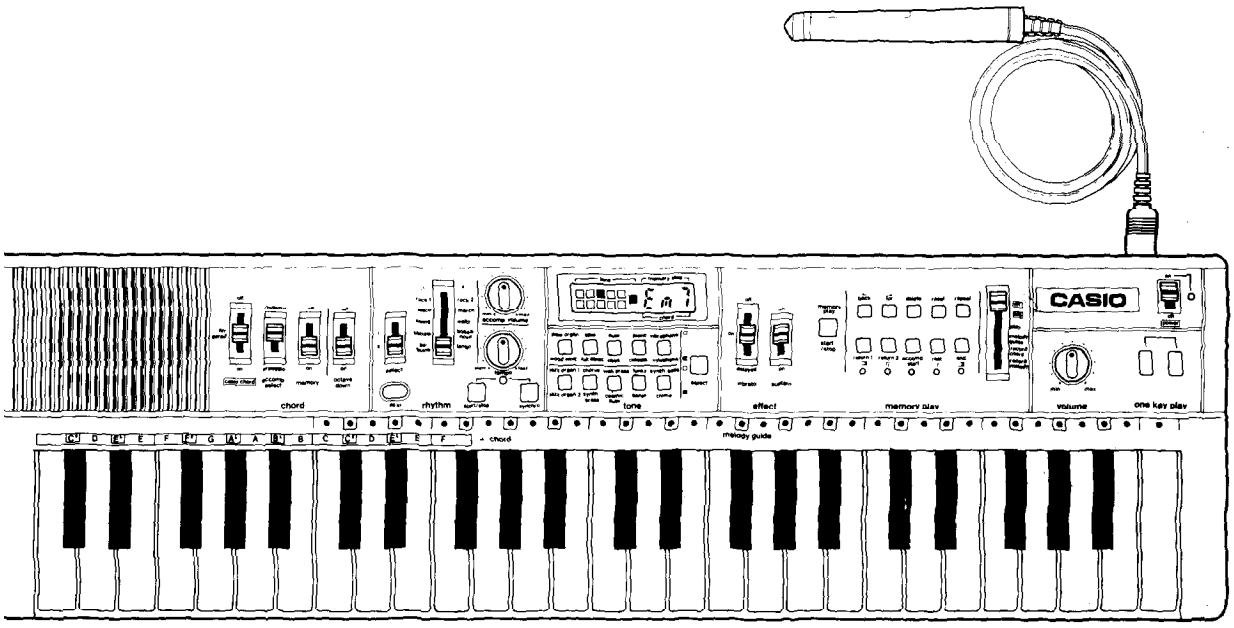
# Casiotone MT-70

Operation Manual.....1
Manual de Operación.....55




CASIO®

# Casiotone MT-70
**ELECTRONIC MUSICAL INSTRUMENT**

Thank you very much for purchasing the Casiotone MT-70, we hope it gives you many years of enjoyment.

The Casiotone MT-70 is a valuable and exciting introduction to the world of music, delighting both the player and the listener with its many talents.

Its forte is a memorable feature that allows reading and storage of entire musical scores which can then be played back in a selection of simple ways.

You can hear the whole score automatically (and play along); follow the lights on the keyboard to reproduce it; or play it at your own pace by pressing just one key.

20 instruments and sounds are represented on the MT-70, with a backdrop of 10 different rhythms to choose from.

It sets new standards in lightness and carrying convenience and, with a 3-way power source, it is ready to play anyplace.

See how easy it is to find your way around its 49-key layout by reading this manual – by the last page you'll have entered a new world of musical pleasure.

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# PART 1

## Casiotone MT-70 Outline and Components


1-1 Arrangement of the Casiotone MT-70
1-2 Guide to Each Part
1-3 Rear Panel (external equipment connections and pitch control)
1-4 Power Supply
1-5 Casiotone MT-70 – Starting to Play

# 1-1 Arrangement of the Casiotone MT-70

The Casiotone MT-70 is divided into various functions which can be grouped within 3 main playing sections.

### A. Normal Play

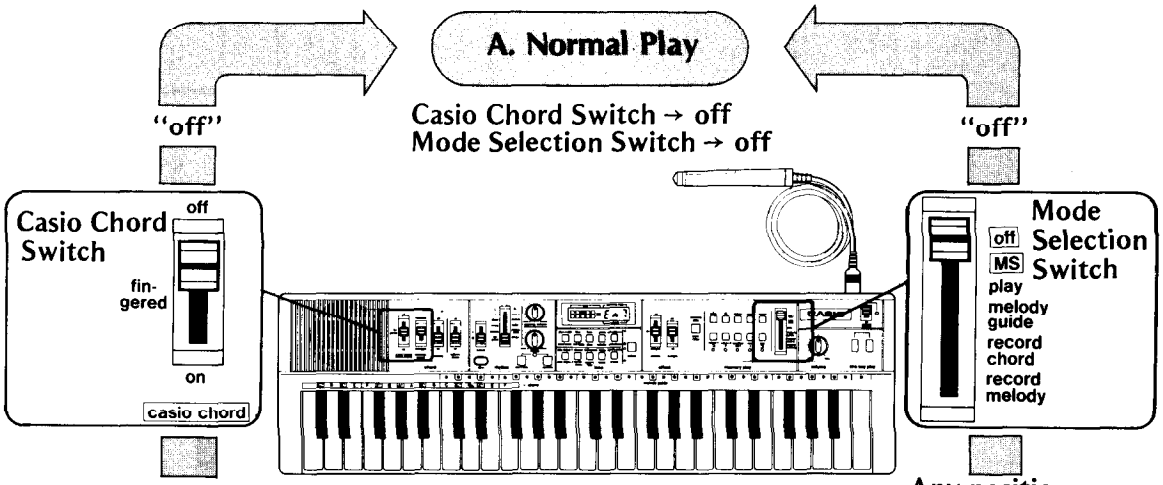
This makes full use of the 49-key (4-octave) keyboard.
It can be used as an authentic electronic keyboard, providing facilities such as 20 preset sounds, 10 rhythms, vibrato and sustain effects, etc.

### B. Auto-Accompaniment

The lower one-and-a-half octaves are devoted exclusively to accompaniment and anyone can play the accompaniment keyboard with just one finger.

### C. Memory Play

The instrument itself reads the music and stores it in the memory.
To play it back you have a choice of Auto-Play, Melody Guide and One-Key Play – all easy and enjoyable to use.




**B. Auto-Accompaniment**

Casio Chord Switch
→ on (or fingered)
Mode Selection Switch → off

**C. Memory Play**

Casio Chord Switch → Either position, depending on method of use.
Mode Selection Switch → Either position (except "off"), depending on method of use.

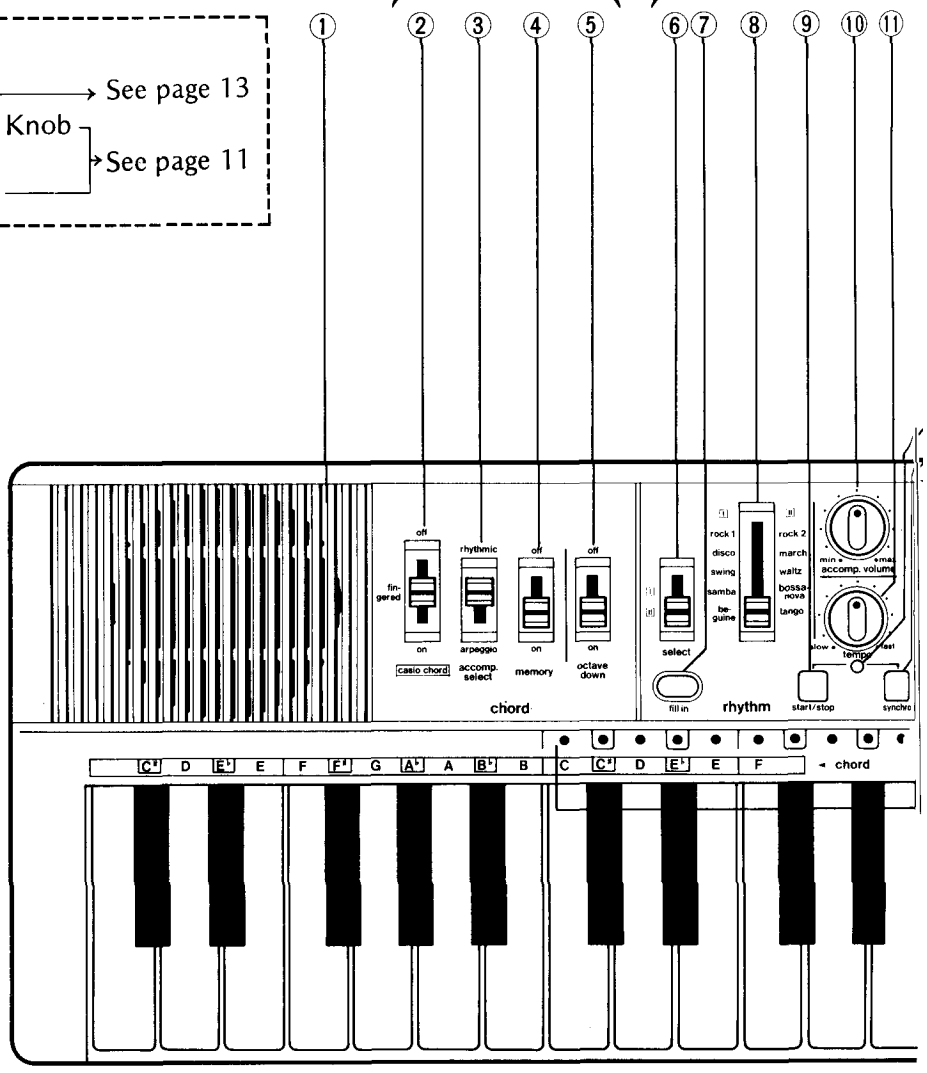
This operation manual is divided into the above three general categories (A, B and C) for easy explanation. Operation of the two switches shown above is especially important. Please read each section of this manual after becoming familiar with the entire structure of the Casiotone MT-70.

# 1-2 Guide to Each Part

The function and operation of each section is given in the subsequent pages.

Auto-Accompaniment Section

Auto-Rhythm Section



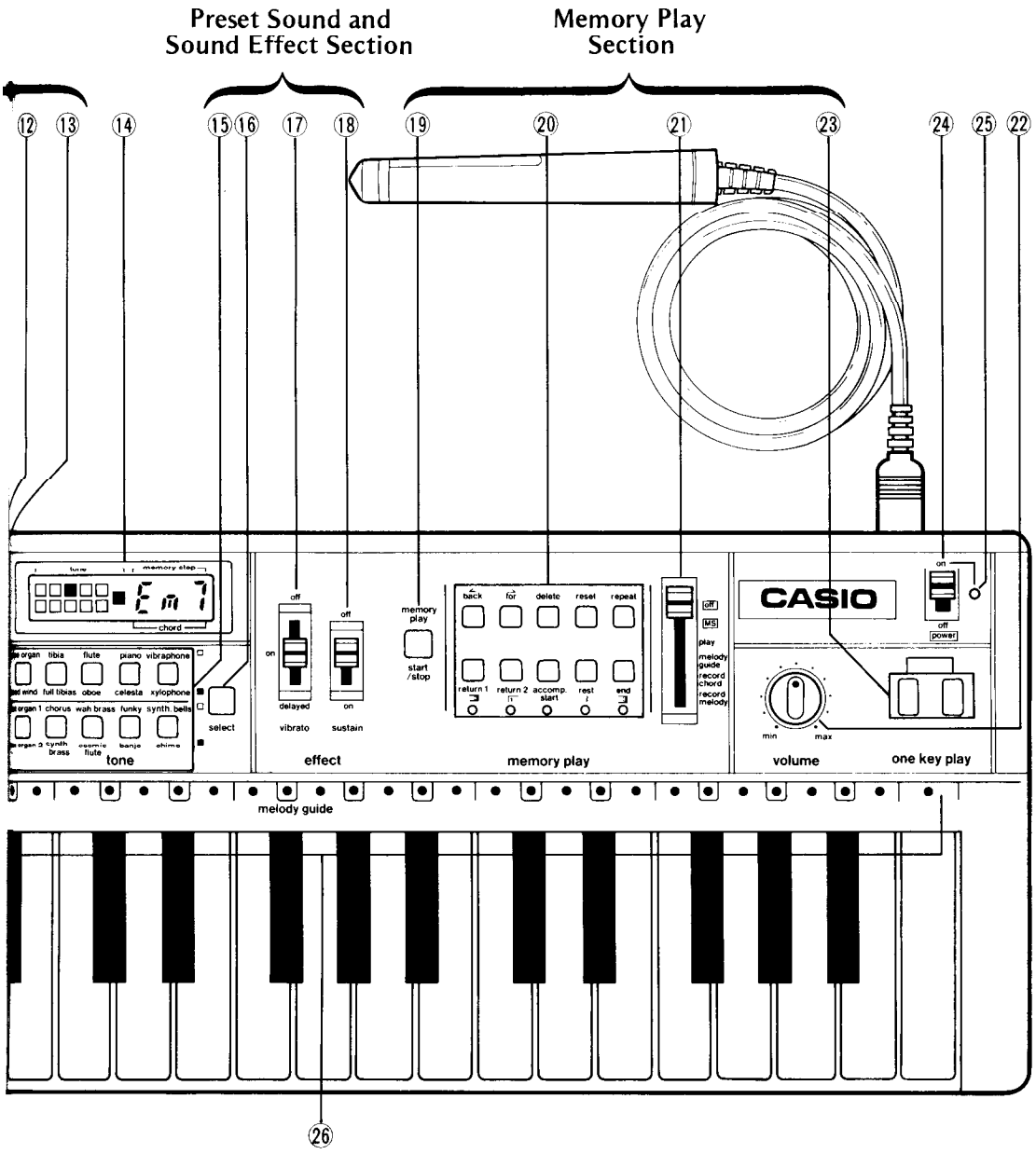

① Built-in Speaker
⑭ Digital Display → See page 13
㉒ Main Volume Control Knob
㉔ Power Switch → See page 11
㉕ Power indicator Lamp

Auto-Accompaniment Section → See page 18

② Casio Chord Switch
③ Accompaniment Selection Switch
④ Memory Switch
⑤ Octave Shift Switch

Auto-Rhythm Section → See page 14

⑥ Select Switch
⑦ Fill-in Button
⑧ Rhythm Selection Switch
⑨ Start/Stop Button
⑩ Accompaniment Volume Control Knob
⑪ Tempo Control Knob
⑫ Tempo Indicator Lamp
⑬ Synchro-Start Button



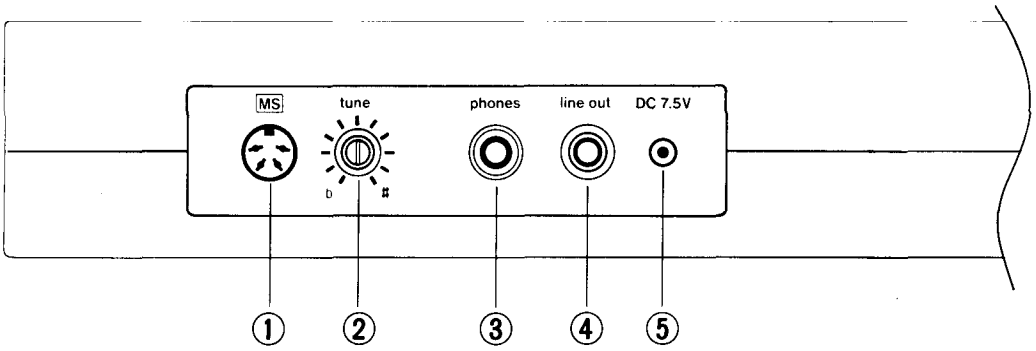

Preset Sound and Sound Effect Section → See page 13

⑮ Sound Selection Buttons
⑯ Select Button
⑰ Vibrato Switch
⑱ Sustain Switch

Memory Play Section → See page 25

⑲ Memory Play Button
⑳ Program Buttons
㉑ Mode Selection Switch
㉓ One-Key Play Buttons
㉖ Melody Guide Indicator Lamps

## 1-3 Rear Panel (external equipment connections and pitch control)

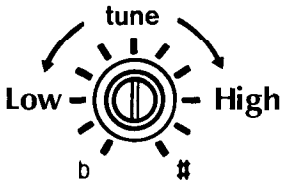



### ① MS Jack

Used to connect the MS-1 Bar Code Reader (standard accessory).

### ② Pitch Control Knob

This pitch adjusts the entire keyboard within ± 1/4 tone (± 50 cents) and gives easy tuning with other instruments.




### ③ Headphone Jack

If a headphone (optional) is connected, the speaker sound will be cut off automatically and playing can be enjoyed privately. Also, by connection of an FM transmitter (optional), the sound of the Casiotone will be transmitted to remote FM receiving apparatus and can be heard through the external speakers of FM radio or other audio equipment.

### ④ Output Jack

To get more powerful volume from the Casiotone connect it to audio equipment or a keyboard amplifier, etc. and external speakers. The volume can be adjusted by using the volume control knob on the Casiotone.

### ⑤ AC Adaptor Jack

Plug in an AC adaptor (optional) and the unit can be driven on AC power. Also, if a car battery adaptor (optional) is plugged in, power can be taken from the cigarette lighter socket of your car.

## 1-4 Power Supply

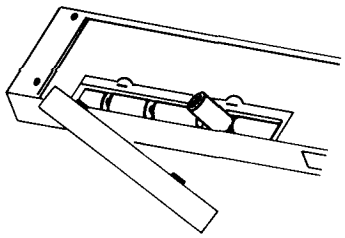
**The MT-70 can be driven on both AC and DC power.**

### DC power

Dry batteries:

- The MT-70 works on five D size (SUM-1) manganese dry batteries.
- If battery power weakens, sounds may be distorted or the contents of the memory may be cleared. In this case, insert new batteries.

### [Battery Replacement]



Open the battery compartment cover on the back of the unit and remove dead batteries. Install new ones making sure the ⊕ and ⊖ terminals are aligned correctly. It is advisable to replace all batteries at the same time for longer battery life.

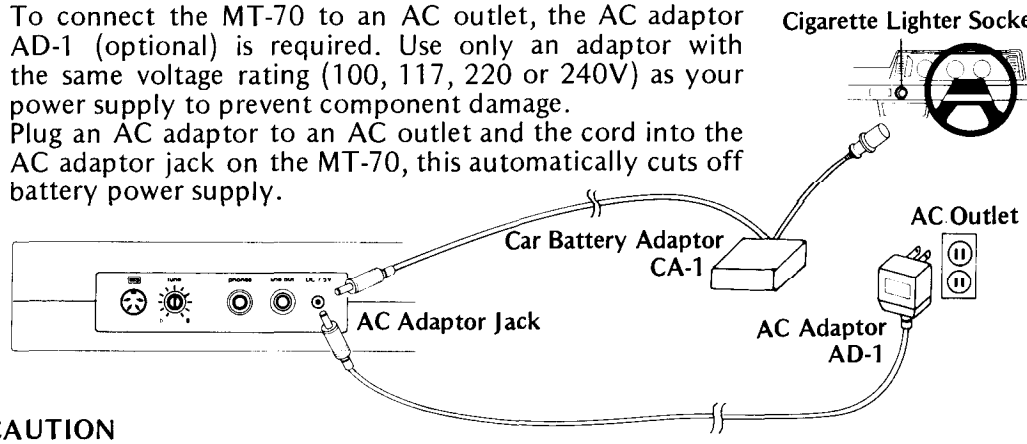
* For battery life, refer to the specifications on page 53.

Car battery:

With the optional car battery adaptor CA-1, you can take power from your car battery via cigarette lighter socket.

### AC power

- To connect the MT-70 to an AC outlet, the AC adaptor AD-1 (optional) is required. Use only an adaptor with the same voltage rating (100, 117, 220 or 240V) as your power supply to prevent component damage.
- Plug an AC adaptor to an AC outlet and the cord into the AC adaptor jack on the MT-70, this automatically cuts off battery power supply.




CAUTION

* WHERE USED FROM THE MAINS THIS UNIT MUST ONLY BE USED WITH A CASIO MAINS ADAPTOR TO PREVENT THE RISK OF DAMAGE.

* When the adaptor is left connected to an AC outlet, it may warm up, but this is quite normal. However, if not used for a long time, disconnect the adaptor whenever possible.

* When batteries are not used for a long period of time, it is advisable to remove them from the battery compartment to prevent damage from leakage.

* Be sure to turn off the power switch on the MT-70 when connecting an AC adaptor. The unit may not function if an AC adaptor is connected while the power switch is on. In this case, turn the power switch off and then on again.

**Protection of the Memory Contents**

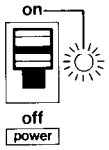
**The contents of the memory, stored by using the MS Memory or Manual Memory Function, will be protected even when the power switch is turned off. However, they may be cleared when battery power becomes weak. To protect the contents of the memory while changing batteries . . .**

1. **Turn the power switch off.**
2. **Connect an AC adaptor.**
3. **Turn the power switch on.**
4. **Replace the batteries.**

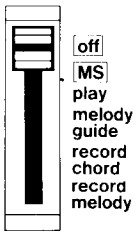
# 1-5 Casiotone MT-70—Starting to Play

The Casiotone MT-70 has various functions, but first of all, let's make some sounds using the following methods. After mastering these basic operations please read each section of this manual.

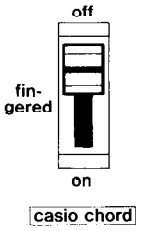
1. **Turn the power on.**
- The power indicator lamp will light up when the power switch is turned on.




2. **Turn the Mode Selection Switch off.**
* This should be set to the "off" position except using the Memory Play Function.

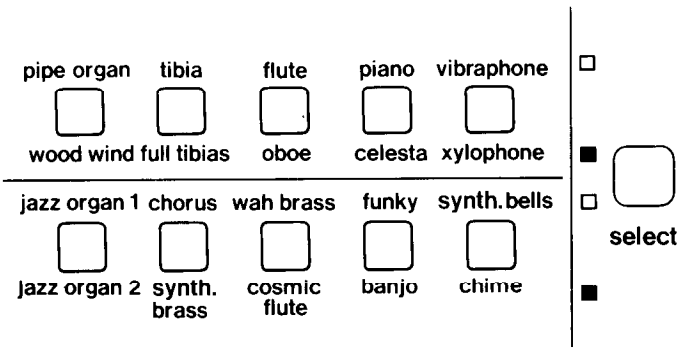



3. **Turn the Casio Chord Switch off.**




4. **Adjust the volume.**
- Set the Main Volume Control Knob in an initial position as illustrated on the right.

5. **Now, start playing.**
- Adjust the volume to a comfortable level while pressing the keyboard keys.
- Experiment with 20 preset sounds by using the Sound Selection Buttons (See page 13 for details).



# PART 2

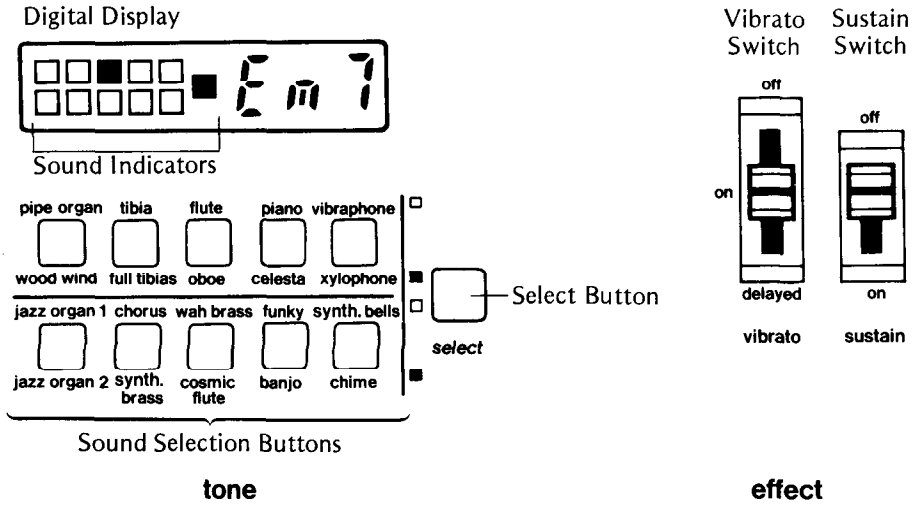
## Preset Sounds/Sound Effects/Auto-Rhythms
### (How to Use as a Normal Keyboard)


2-1 Use of the Preset Sound/Sound Effect Section

2-2 Operating the Auto-Rhythm Section

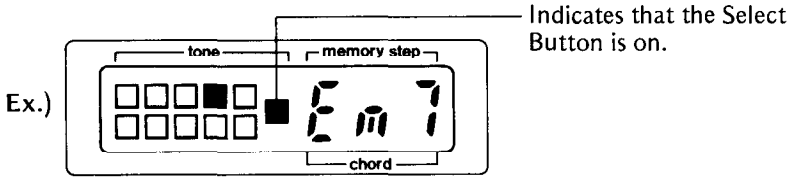
2-3 Preset Sounds and their Note Ranges

# 2-1 Use of the Preset Sound/Sound Effect Section




## ●Selecting a Preset Sound

Press any one of the Sound Selection Buttons. A sound indicator corresponding to the selected sound will appear on the digital display. When the Select Button is pressed on, the preset sounds written below the Sound Selection Buttons will be selected.




In this case, "celesta" is selected.

* If the power switch is turned off, the selected preset sound will be cleared and the "pipe organ" sound will be set automatically.

## ●Adding the Vibrato Effect.

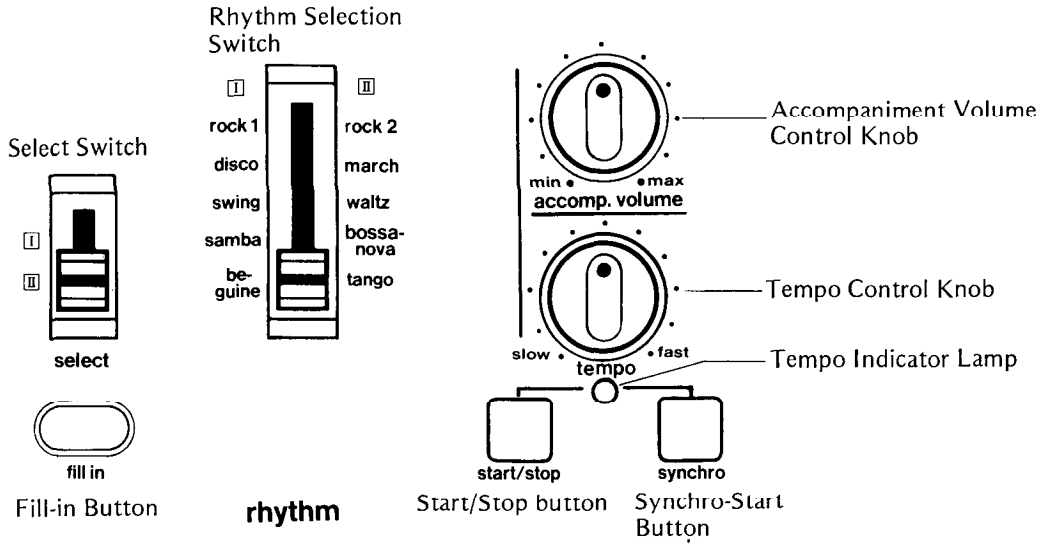
The vibrato effect slightly vibrates the sound to give it a delicate, emotional expressions. Two types of vibrato effects can be obtained with the Vibrato Switch.

**off** . . . . . When the vibrato effect is not required.
**on** . . . . . For a normal vibrato effect.
**delayed** . . . . . To give a vibrato effect that chases the original sound.

## ●The Sustain Effect.

With the Sustain Switch turned on, sounds linger even after your fingers are removed from the keyboard. This depth of sound can be used to best effective in combination with preset sounds and to enliven playing style.

# 2-2 Operating the Auto-Rhythm Section




## ●Making use of the Rhythm Section

### Choosing your rhythm.

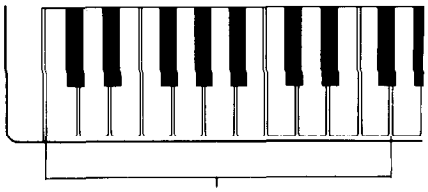
There are two rhythm sections, I and II. With the select switch at position I, the rhythm styles from the left side selection can be played, and at position II the right side rhythms can be selected.

### Start/Stop Button

Each time you want the rhythm to stop or start, simply press this button.

### Synchro-Start Button

When this button is pressed the tempo indicator lamp will light and synchro-start will go to a "wait condition". (One more press will cancel the "wait condition.") The rhythm will start from the first beat the moment accompaniment keys are pressed (lower one-and-a-half octaves, C to F).



Accompaniment keyboard
(Lower one-and-a-half octaves)

### Tempo Indicator Lamp

Lights up on the first beat of the rhythm during rhythm play. It continues to light up in the synchro start "wait condition".

### Accompaniment Volume Control Knob

Adjusts the volume of the rhythm. Turning the knob to the right increases the volume.

- When using the Auto-Accompaniment Function (see page 16), the volume levels of both the rhythm and accompaniment sections can be adjusted.
- Note that the Main Volume Control Knob controls overall volume, so no rhythm sound will be heard if the Main Control Knob is set to minimum, even if the accompaniment volume is at maximum.

### Tempo Control Knob

Adjusts the rhythm speed. Turning the knob to the right increases the tempo.

### Fill-in Button

If pressed during rhythm play, fill-in (percussive graces) will be delivered.

# 2-3 Preset Sounds and their Note Ranges

## ●List of Preset Sounds

The Casiotone MT-70 has 20 kinds of preset sounds. Note ranges and sounds are varied to achieve individual preset sound characteristics.

### How to Read the Chart

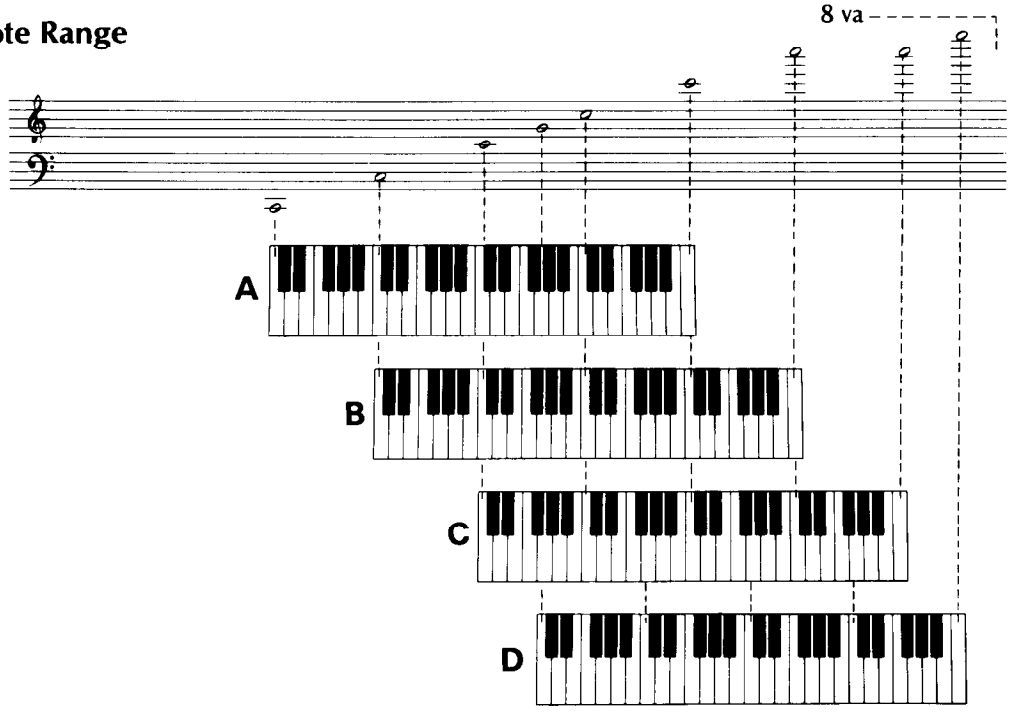
**Note Range:** Codes (A, B, C, D) in the note range column are shown below.
**Sound:** "○" symbol denotes a sustained sound (a sound which continues as long as the keys are being pressed).
A blank denotes a fading sound (a sound which fades even though the keys remained pressed).

| Preset Sound Name | Note Range | Sound |
|---|---|---|
| pipe organ | A | ○ |
| tibia | B | ○ |
| flute | B | ○ |
| piano | A | |
| vibraphone | B | |
| jazz organ 1 | A | ○ |
| chorus | A | ○ |
| wah brass | A | ○ |
| funky | B | |
| synth. bells | B | |

| Preset sound Name | Note Range | Sound |
|---|---|---|
| wood wind | A | ○ |
| full tibias | A | ○ |
| oboe | A | ○ |
| celesta | C | |
| xylophone | A | |
| jazz organ 2 | A | ○ |
| synth. brass | A | ○ |
| cosmic flute | B | ○ |
| banjo | A | |
| chime | D | |

**The "chime" sound can be used as a sound effect as it contains various note pitches.*

## ●Note Range



# PART 3

## Auto-Accompaniment (Casio Chord System)

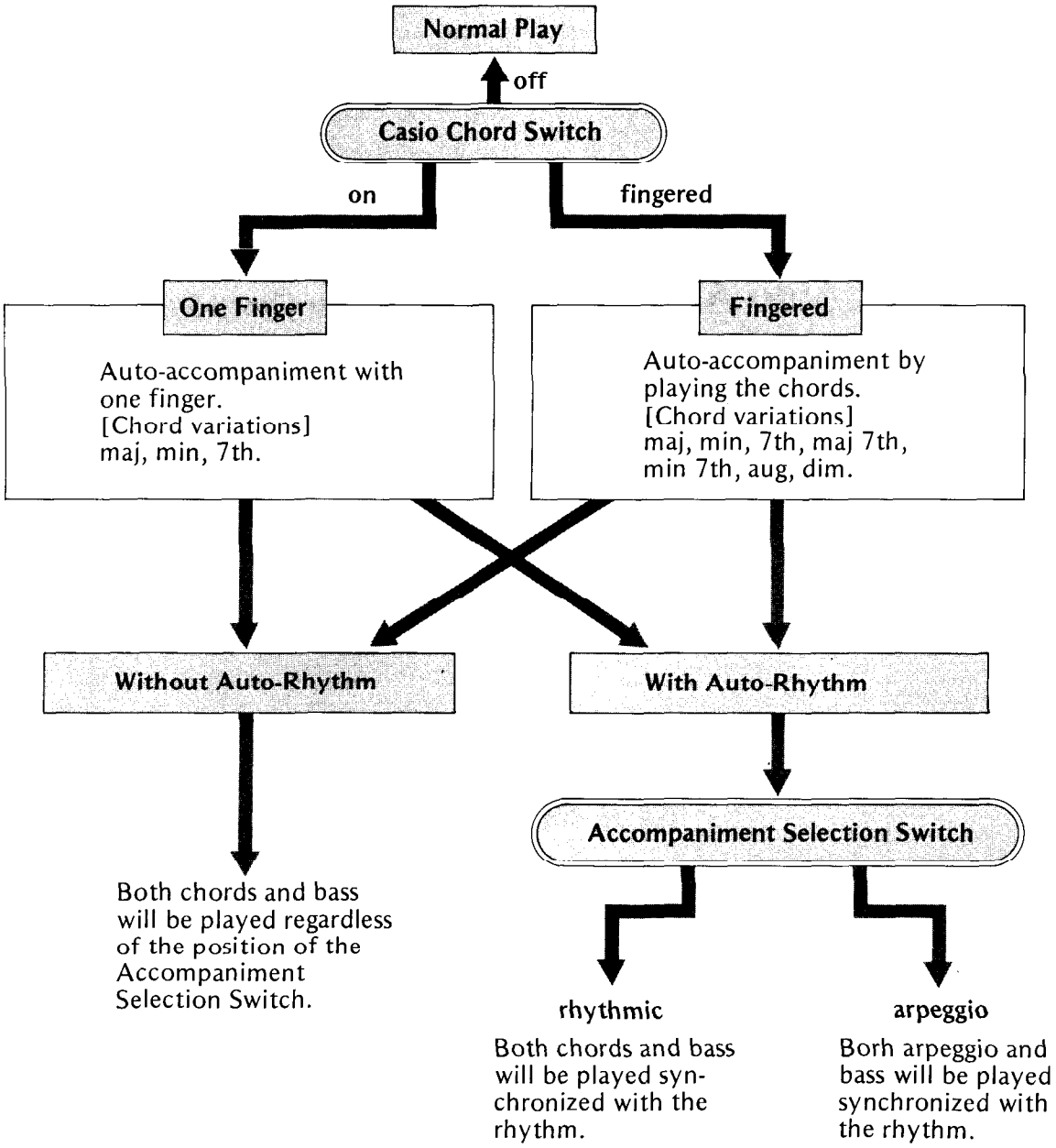

3-1 Auto-Accompaniment Description

3-2 Putting the Auto-Accompaniment Section Into Play

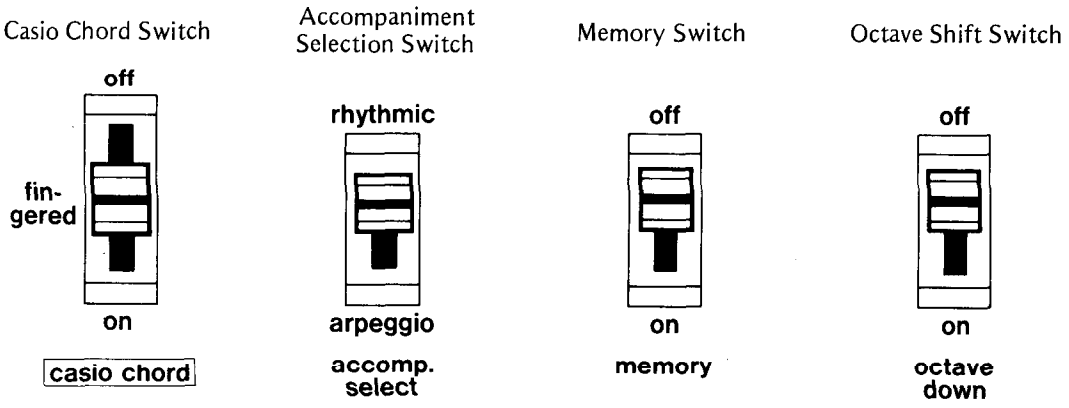
3-3 Try Out Auto-Accompaniment (operating methods)

## 3-1 Auto-Accompaniment Description

Keyboards are generally played by using the right hand for the melody and the left hand for the accompaniment, but this is very difficult for a beginner. However, this Auto-Accompaniment feature (Casio Chord System) allows anybody who is unfamiliar with handling a keyboard to combine chords, bass, arpeggio, etc. with rhythm and perform auto-accompaniment simply by using one finger.
By using the Casio Chord Switch, Accompaniment Selection Switch and Auto-Rhythm, various styles of auto-accompaniment can be achieved. They can be used differently depending on individual ability or the music to be played.


Normal Play
off
Casio Chord Switch
on
fingered
One Finger
Auto-accompaniment with one finger.
[Chord variations]
maj, min, 7th.
Fingered
Auto-accompaniment by playing the chords.
[Chord variations]
maj, min, 7th, maj 7th, min 7th, aug, dim.
Without Auto-Rhythm
With Auto-Rhythm
Both chords and bass will be played regardless of the position of the Accompaniment Selection Switch.
Accompaniment Selection Switch
rhythmic
Both chords and bass will be played synchronized with the rhythm.
arpeggio
Borh arpeggio and bass will be played synchronized with the rhythm.

## 3-2 Putting the Auto-Accompaniment Section Into Play

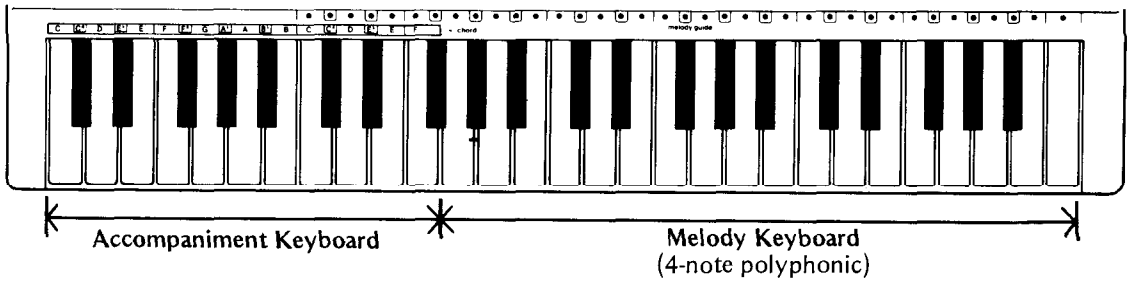



### ●Casio Chord Switch

Turns Auto-Accompaniment (Casio Chord) on and off.

**off** . . . . . For normal playing without auto-accompaniment. The other three switches do not function in this position.
**fingered** . . . . For auto-accompaniment by playing the chords.
**on** . . . . . For auto-accompaniment using one finger.

* If the Casio Chord Switch is set to the "on" or "fingered" position, the lower one-and-a-half octaves become exclusive accompaniment keyboard keys.




### ●Accompaniment Selection Switch

Selects the method of accompaniment.

**rhythmic** . . . Both chord and bass sounds synchronized with the rhythm will be automatically accompanied.
**arpeggio** . . . . Both arpeggio and bass sounds synchronized with the rhythm will be automatically accompanied.

* If Auto-Accompaniment is played without using Auto-Rhythm, chords and bass become continuous sounds regardless of the position of the Accompaniment Selection Switch. In this case, arpeggio is not produced.

### ●Memory Switch

When turned on, accompaniment sounds can be stored in the memory and even if your fingers are removed from the keyboard they continue to sound until the next keyboard key is played.

### ●Octave Shift Switch

This makes the note range of the melody keyboard one octave lower.

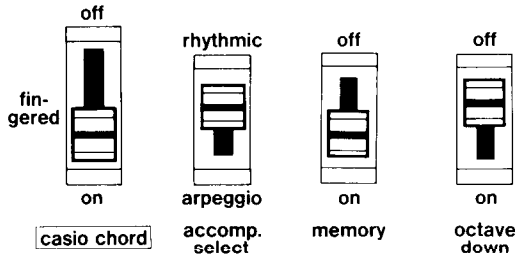
# 3-3 Try Out Auto-Accompaniment (operating methods)

★ Set the Mode Selection Switch to "off" when playing Auto-Accompaniment.

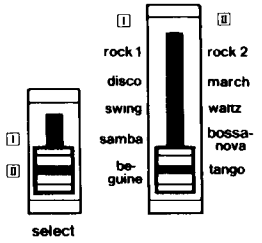
## ●For Auto-Accompaniment using one finger.

(1) Turn the Casio Chord Switch on.

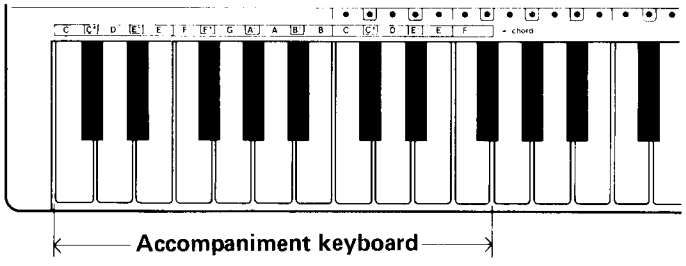
* The other three switches may be in any position. Select according to the desired effects.




(2) Start any one of the Auto-Rhythms.

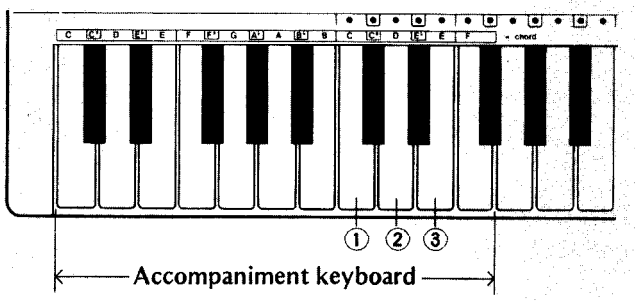



(3) Press one of the accompaniment keyboard keys. The major chord (or arpeggio) and bass sounds will be automatically played along with the rhythm.



**Relationship of the chord to the fingered keyboard keys.**

When the Casio Chord Switch is on, if one accompaniment keyboard key is pressed, it becomes the major chord of that note and the appropriate bass sound and/or arpeggio sound are played automatically. When you want to make this a minor chord, press any key on the accompaniment keyboard which is to the right of that note. Under the same conditions, if one more key (three keys in total) is pressed, it becomes a seventh chord.




**(Example)**

C (C major chord) → Press ①.
Cm (C minor chord) → Press ① and ② at the same time*.
$C_7$ (C seventh chord) → Press ①, ② and ③ at the same time*.
* Not only ② and ③, but any black or white keys can be used as long as they are to the right of ①.

**Note:** When the Casio Chord Switch is on, the automatically played chords are one of three kinds – major, minor or seventh.

## ●For Auto-Accompaniment by playing chords.

(1) **Set the Casio Chord Switch to "fingered".**
The other three switches may be in any position. Select according to the desired effects.

(2) **Select and start an Auto-Rhythm.**

(3) **Press one of the accompaniment keyboard keys. The chord (or arpeggio) and bass sounds will be played automatically along with the rhythm.**

* The volume of the accompaniment sound can be adjusted by the Accompaniment Volume Control Knob.

If a maj, min, 7th, maj 7th or min 7th chord is played with the Casio Chord Switch at "fingered", the bass pattern of the respective chord will be played automatically. However, when a chord other than the chords mentioned above is played, only the root sound or the lowest note of that chord will be played with the rhythm. (See page 21).

- If Auto-Rhythm is in the synchro start "wait condition", Auto-Accompaniment will start along with the rhythm the moment the accompaniment keys are pressed. This makes it very effective when playing an introduction to the music, or a melody to which the accompaniment is added along the way.
- When Auto-Accompaniment is played without using Auto-Rhythm, chords and bass become continuous sounds regardless of the position of the Accompaniment Selection Switch.

## ●How to Read the Display

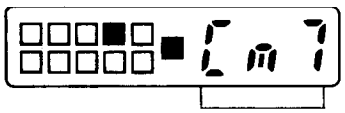
Chords played during Auto-Accompaniment are automatically identified and the name of the chord is displayed on the digital display.
The chords displayed are maj, min, 7th, maj 7th, min 7th, dim and aug and they will be shown as follows.

major
major 7th –
augmented –

minor –
minor 7th –

7th –
diminished –

<Digital Display>



Chord name
Ex.) $Cm_7$

Ex. 1) C major (C) –
Ex. 2) G flat minor 7th ($G^{\flat}m_7$) –
Ex. 3) F sharp augmented ($F^{\sharp}$aug) –

- When a chord is played other than those mentioned above, the chord construction will be substituted by one octave from C to C, and only the lowest note of that construction will be displayed. In this case, the bass sound of the lowest note of that chord will be produced.

  Ex.) **When notes A, B and C are played . . .**
  Since the notes are C, A and B, the lowest note of this chord will be C and " " will be displayed.

- When chords have the same construction, such as $Am_7$ (A, C, E, G) and $C^6$ (C, E, G, A), the seven types of chords mentioned before will take priority and the appropriate bass sound will be produced. In this case, it will be identified as "$Am_7$" and displayed "".

- Due to the nature of diminished chords, there may be some cases where chords are different although the note construction is the same. In such cases, they will be differentiated in one of the following chords and that chord name will be displayed.
  Also, the bass sound of the root note of the displayed chord will be produced in this case.

  * Diminished (dim) ..... C dim, $C^{\sharp}$dim, D dim, $E^{\flat}$dim, E dim, F dim.
    Augmented (aug) ..... C aug, $C^{\sharp}$aug, D aug, $E^{\flat}$aug.

- With the Accompaniment Selection Switch at "rhythmic", if the chord constructed with 4 notes such as 7th, minor 7th, etc. is played, the 5th note of that chord will be omitted.
  (In the case of a diminished chord, C, $C^{\sharp}$ or D will be omitted.)

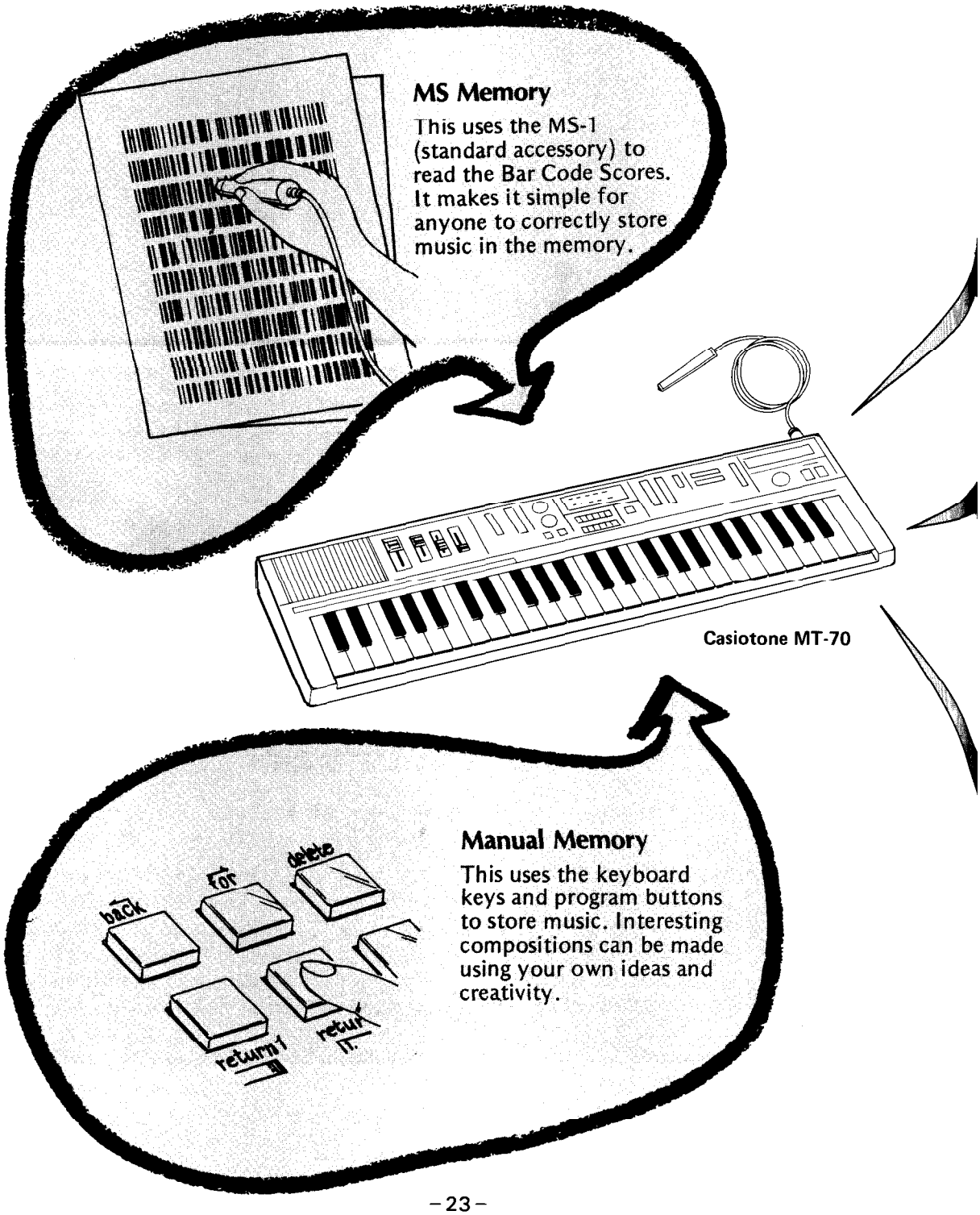
# PART 4

## Memory Play

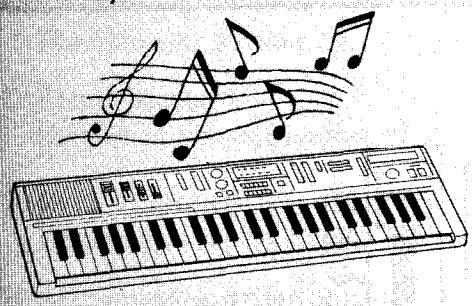

4-1 Memory Play System
4-2 Guide to Use of the Memory Play Section
4-3 MS Memory
4-4 Auto-Play
4-5 Melody Guide
4-6 One-Key Play
4-7 Manual Memory

## 4-1 Memory Play System

The memory play function completely stores the melody (notes and duration) and chords and allows enjoyment of various playback features such as Auto-Play, Melody Guide and One-Key Play. As shown in the figure, there are two methods of storing music in the memory and three methods of playback from the memory.

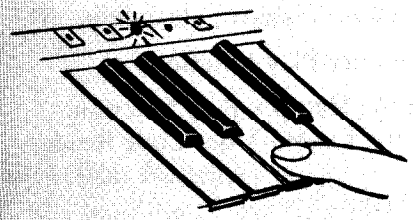

MS Memory
This uses the MS-1 (standard accessory) to read the Bar Code Scores. It makes it simple for anyone to correctly store music in the memory.
Casiotone MT-70
Manual Memory
This uses the keyboard keys and program buttons to store music. Interesting compositions can be made using your own ideas and creativity.
back
for
delete
return

**Auto-Play**



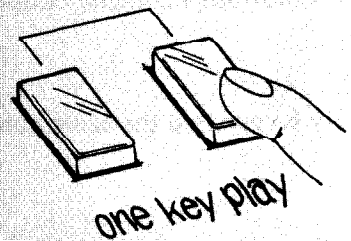
Integrated playing, including rhythm, bass and arpeggio is delivered automatically by simply pressing a switch.

**Melody Guide**



Melody Guide indicators illuminate and tell which key to press. This is ideal for getting to know the keyboard.

**One-Key Play**




Melodies can be played by simply pressing one key. Rhythm, chord and bass accompaniment can also be used.

This manual explains each feature by dividing them into respective categories. If you read through it step by step you should soon have a good grasp of the entire memory function.

**1** **4-2 "Guide to Use of the Memory Play Section"** (See Page 25) outlines the operation of each switch. (Methods for specific use are explained again under each heading.)

**2** Refering to the explanation in **4-3 "MS Memory"** (See Page 27), let's store one song.

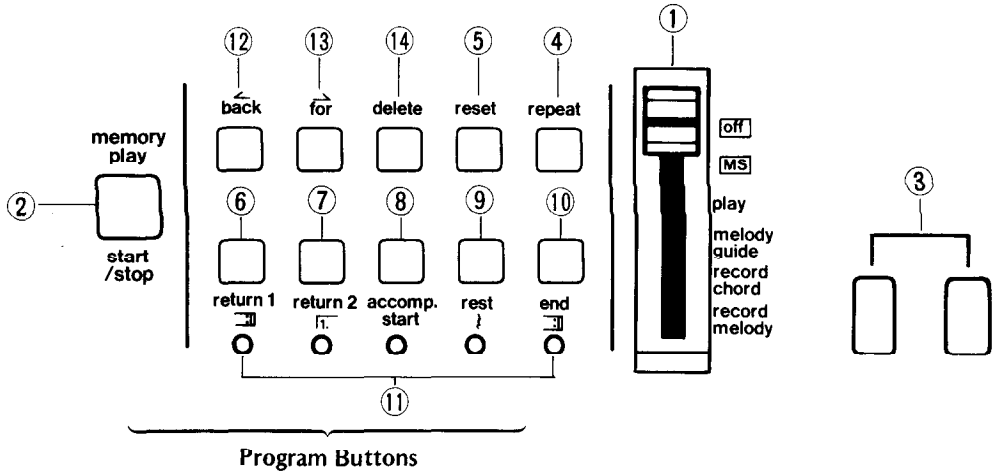
**3** According to the explanation in **4-4 "Auto-Play"** See page 30), automatically play a stored song.

**4** Now, expand your talents by using **4-5 "Melody Guide"** (See Page 33) and **4-6 "One-Key Play"** (See Page 35).

**5** After mastering ① to ④, advance to **4-7 "Manual Memory"** (See Page 37).

*Some musical knowledge is helpful for Manual Memory but interesting sounds can be created using your own ideas.

# 4-2 Guide to Use of the Memory Play Section




① **Mode Selection Switch**

Selects ways of playing or storing music when using the Memory Play function.

| | |
|---|---|
| **off** | Set to this position when not using the Memory Play function. |
| MS | When storing melodies or chords using the MS-1 Bar Code Reader (standard accessory). |
| **play** | When using Auto-Play or One-Key Play. |
| **melody guide** | When using Melody Guide function. |
| **record chord** | When storing the chords manually. |
| **record melody** | When storing melodies (note pitches and durations) manually. |

## [Play Buttons]

* The following buttons (② to ⑤) are used for performing Auto-Play or One-Key Play.

② **Memory Play Button**

Press to start Auto-Play. It will stop if pressed once more.

③ **One-Key Play Buttons**

These are used to perform One-Key Play or storing note durations manually. Either of the two buttons may be used to provide the same effect.

④ **Repeat Button**

If this button is pressed prior to or during Auto-Play, play is repeated the same number of times it is pressed.

⑤ **Reset Button**

Press this button prior to using Auto-Play or One-Key Play. Also, press to stop Auto-Play during playing.

## [Program Buttons]

* The following buttons (⑥to⑪) are used for storing melodies manually.

⑥ **Return Button 1**
Used when a repeat symbol 𝄆 𝄇 is shown on the musical score.

⑦ **Return Button 2**
Used when a repeat symbol such as 1. is shown on the musical score.

⑧ **Accompaniment Start Button**
Designates the location where accompaniment starts.

⑨ **Rest Button**
Designates a rest location.

⑩ **End Button**
Designates the end of the music.

⑪ **Program Indicator Lamp**
The applicable program indicator lamp will light up during storage or correction operation.

## [Correction Buttons]

* The following buttons (⑫to⑭) are used for checking or correcting the contents of the memory.

⑫ **Back Button**
Backs up one step each time pressed.

⑬ **Forward Button**
Advances one step each time pressed.

⑭ **Delete Button**
Press to delete the contents of the memory displayed.

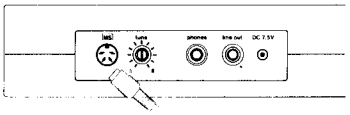
# 4-3 MS Memory

This is a method of reading and storing the pitch and duration of the notes and chords from the Bar-Coded Music using the MS-1 Bar Code Reader. With this reader anyone can store music into the memory easily and accurately.

## ●Storage Method

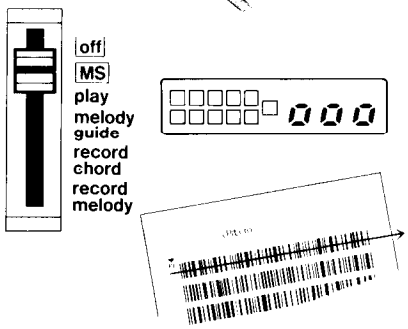
Let's store "Symphony No. 9 'Choral' " by Beethoven, the code for which is included in the enclosed booklet.

(1) **Connect the MS-1 (standard accessory) to the MS jack on the MT-70.**



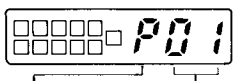
(2) **Set the Mode Selection Switch to the "MS" position.**

- "000" will be displayed on the digital display.




(3) **Move the tip of the MS-1 from left to right in one continuous motion across the first line (P01) of the Bar-Coded Music.**

- If stored correctly, a high pitch sound will be emitted and the display will show the "bar code symbol" (in this case, P for pitch) and line number as illustrated on the right.



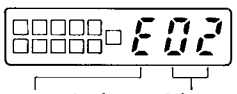

This shows the first line of the "pitch" has been stored.

Line number

Pitch symbol

("C" denotes Chord and "♩" shows Length.)

- If the motion or position of the reader is incorrect a low pitch sound (error sound) will be heard and the display will be as illustrated on the right. Pass the reader across the bar code again with a steady, upright stroke until you hear the correct high pitch sound.




This shows an error occurred on the first line.

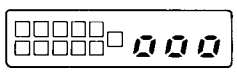
Error symbol

Line number

* If you are unable to get correct results from the reader see "MS Memory Hints" (page 29).

(4) **Continue programming each line in sequence.**

- When the last line of each section (Pitch, Length or Chord) is entered, the display will show "000" instead of a line number.




(5) **After you have stored all bar-coded lines (Pitch, Length and Chords), turn the Mode Selection Switch to the "off" position. Storage is now completed.**

From now you can play the score by refering to "Auto-Play" on page 30, "Melody Guide" on page 33 and "One-Key Play" on page 35.

★ This example shows a storage sequence starting with "Pitch". However, storage is possible in any sequence. Also, if you want to store only the melody, store "Pitch" and "Length" only.

**Note:** Since a melody is determined by the pitch and length (duration), it cannot be played by storing only the pitch or only the length (duration).

## ●Memory Deletion

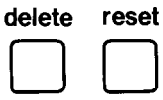
If a new item is stored, the previous one will be deleted automatically. However, when only a melody (pitch and length) is to be stored, delete the previous chord memory. If not, the chord stored previously will accompany the melody which is newly stored during Auto-Play.

### Deletion Method

(1) Set the Mode Selection Switch to the "record chord" position.

(2) Press the Reset Button while pressing the Delete Button.

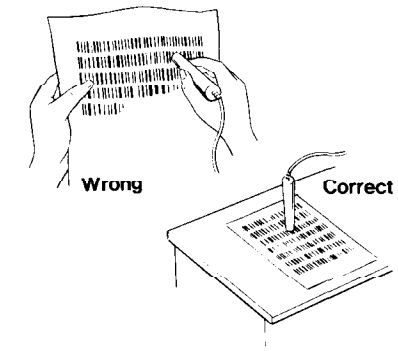
* In step (1), if the Mode Selection Switch is set to the "record melody" position, the melody will be deleted.

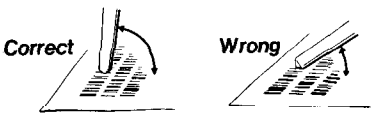


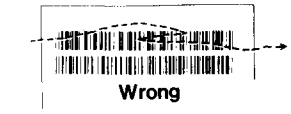
## MS Memory Hints

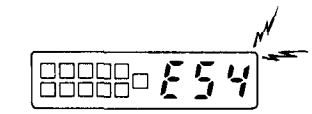
**Storage can be accomplished easily by paying attention to the following points.**

- Place the Bar Code on a table or flat surface. It cannot be properly read if held in the hands.
- The MS-1 should be held at approximately a ninety degree angle to the Bar Code.
- Move the MS-1 straight across the Bar Code from edge to edge. Do not go out side of the Bar Code or move backwards.
- Move the MS-1 from left to right across the Bar Code without stopping along the way. Also, do not start in the middle.
- The MS-1 should touch the Bar Code slightly. Do not press too firmly or hold too far from the Bar Code.
- Move the MS-1 at a steady speed (one line should take about one second). Reading cannot be done if the speed is too slow or too fast.
- Store in correct sequence from the first line to the last line. If even one line is skipped, further storage cannot be accomplished.
- When an error sound is produced, repeat the storage by confirming the location of the error using the Memory Step Display.
- Bar-Code Music cannot be properly read under extremely strong light such as direct sunshine, a spotlight, etc. Storage should be done under normal light.




## Notes on handling the Bar Code scores

If the Bar Codes (bars printed in black) are damaged, scratched or become dirty, the memory operations cannot be performed properly.
So please take the following precautions:

* Do not fold or wrinkle the score.
* Keep the score free of liquids, dust particles, etc.
* Do not write on the score with a pencil, etc.

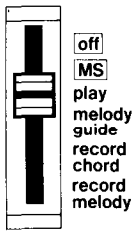
# 4-4 Auto-Play

Using this function, music which has been stored by the MS Memory (see page 27) or Manual Memory (see page 37) can be played automatically along with the rhythm, bass or arpeggio by simply pressing one button. This way, you get the pleasure of listening and can also practice or sing along.

## ●Operating Method

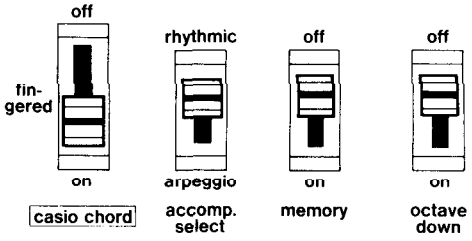
**Store the music in advance in the MS Memory or Manual Memory.**

(1) **Set the Mode Selection Switch to the "play" position.**



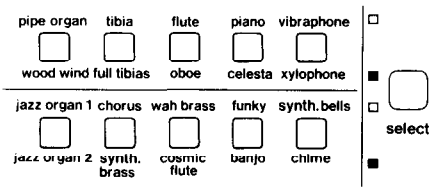

(2) **Set each switch on the Auto-Accompaniment Section as follows.**

- Casio Chord Switch → "on" or "fingered"
  * When set to "off", Auto-Play without accompaniment can be performed.
- Accompaniment Selection Switch → Any position according to your selection of accompaniment style.
- Memory Switch ——→ "on" or "off"
- Octave Shift Switch ——→ "on" or "off"
  * Octave Shift Switch does not function during Auto-Play.



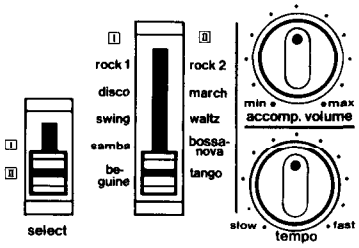

(3) **Set each switch on the Preset Sound and Sound Effect Section as follows.**

- Sound Selection Buttons → Select one appropriate to the music.
- Sound Effect Switches (Sustain and Vibrato) → Choose a suitable effect for the music.




(4) **Set each switch on the Auto-Rhythm Section as follows.**

- Rhythm Selection Switch → Select the right rhythm for the music.
- Tempo Control Knob → Set a level in time with the music.
- Accompaniment Volume Control Knob → Set to a comfortable level.




(5) **Press the Reset Button on.**

(6) **Press the Memory Button on. Now, Auto-Play will start.**

## ●To Play Repeatedly

Prior to pressing the Memory Button or during play, press the Repeat Button the number of times you want to repeat play.

## ●To Stop in Mid-play

*Press the Reset Button to stop the Auto-Play while playing. Then press the Memory Button* to re-start Auto-Play from the beginning.

* If you press the Memory Button in the middle of play, it will stop and when the Memory Button is pressed again, play will begin from that location. However, in this case, only the melody will be played.

## ●Shifting of Preset Sounds, Rhythms, Accompaniment, etc.

As it is possible to change the preset sounds, rhythms, tempo and volume level even during Auto-Play, you can add various expressions to the music being played. Also, the accompaniment style can be changed by shifting the Accompaniment Selection Switch.

**Note:** Since the "waltz" is a three beat rhythm, take care not to shift it to another rhythm alternately. Otherwise, the melody will go out of rhythm.

### ●For Auto-Play of the melody only there are three methods:

A. Turn the Accompaniment Volume Control Knob to minimum during Auto-Play.

B. Store only the melody section (note pitch and length) and delete the chord memory.

C. Set the Casio Chord Switch to the "off" position.

### ●For Auto-Play of the accompaniment only.

Start Auto-Play by using the Start/Stop Button on the auto-rhythm section panel.

* To get an ensemble effect, the note pitch of the melody during Auto-Play is slightly lower compared to the note pitch in normal play.

## Getting more fun out of Auto-Play

### Plus One Exercise

Up to 2 notes can be played simultaneously from the keyboard keys (4 octaves) during Auto-Play, so you can add obligatos or harmonics to the auto-played melody. Also, you can put in another instrument as accompaniment.

### Minus One Exercise 1

If you press the Memory Play Button with the Mode Selection Switch at "off", only a melody will be auto-played and the whole keyboard (4 octaves) becomes 6-note polyphonic. This is helpful for practicing chords played along with the melody.

### Minus One Exercise 2

If you press the Start/Stop Button on the Auto-rhythm section panel, only the accompaniment will be auto-played. Along with the accompaniment, you can play the melody or practice adlibbing by using the melody keyboard keys (upper 2.5 octaves), or other instruments.

### Keyboard Practice

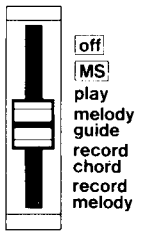
During Auto-Play the melody guide indicator signals will light up on the keyboard in sequence with the stored music to show which keys to press. You can play the melody as guided by these indicator lamps and will soon become familiar with the note sequences for different melodies.

# 4-5 Melody Guide

The melody guide indicators light up in accordance with the stored music and show which keys to press. Even somebody who cannot read music can play easily by pressing the keys as shown by these indicator lamps. This is ideal for beginners to learn the basics of keyboard usage.

## ●Operating Method

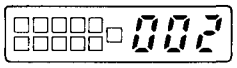
**Store a music in advance in the MS Memory or Manual Memory.**



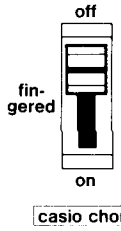

**(1) Set the Mode Selection Switch to the "melody guide" position.**

- A melody guide indicator will light up and the step number (the first note stored in the memory) will appear on the display.

Note: If "accompaniment start" has been programmed at the beginning of the music, the step display will start from "002". Press the Reset Button if the display does not show "002".




**(2) Set the Casio Chord Switch to the "off" position.**




**(3) Start Melody-Guide Play.**

Press the keys in sequence following the signals of the indicator lamps.

- If a key below a lit indicator is pressed, the lamp will go off and the next note will light up.
- If the indicator lamp remains on after the keyboard key is pressed, this means that the same note continues. In this case, press that key again.
- Press the keys rhythmically in time with the melody.

* Once the stored music has been played, it can be repeated from the beginning. Press the Reset Button if you want to stop playing in mid-melody and start over again.

## Play Along With the Rhythm

**After you have become familiar with the melody, see how well you can play along with a rhythm:**

(1) Set the Mode Selection Switch to the "melody guide" position.

(2) Set the Casio Chord Switch to the "on" or "fingered" position.

(3) Select a rhythm appropriate to the music and adjust the tempo.

* It is advisable to start with a slow tempo.

(4) Press the Reset Button.

(5) Start Melody-Guide Play in time with the rhythm.

Now play the keys as previously, keeping in time with the rhythm.

- The rhythm will start automatically the moment you press a key and will stop just after the key of the last note is pressed.
- You can repeat playing as many times as you wish. Press the Reset Button to stop at any point and start over again.

* In the case of music in which the introduction is only chord playing, press the Start/Stop Button on the auto-rhythm section panel after Step (4) and start the introduction first, and then start Melody-Guide Play from the melody part.

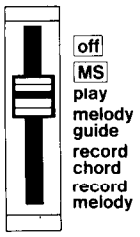
# 4-6 One-Key Play

Each time the One-Key Play Button is pressed, a note of the music stored in the MS Memory or Manual Memory can be called out. With this key anyone can enjoy playing simply by using one finger.

## ●Operating Method

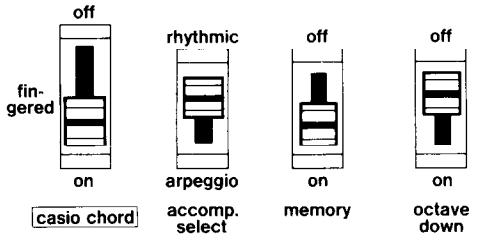
**Store a music in advance in the MS Memory or Manual Memory.**

**(1) Set the Mode Selection Switch to the "play" position.**



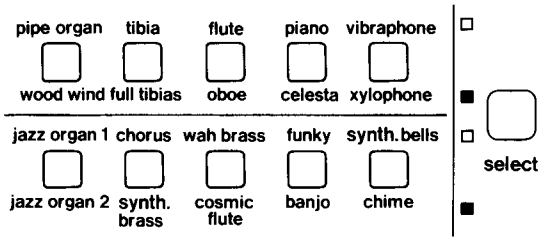

**(2) Set each switch on the Auto-Play Section as follows.**

- Casio Chord Switch → "on" or "fingered"
- Accompaniment Selection Switch → Any position according to the accompaniment style you want.
- Memory Switch → "on" or "off"
- Octave Shift Switch → "on" or "off"



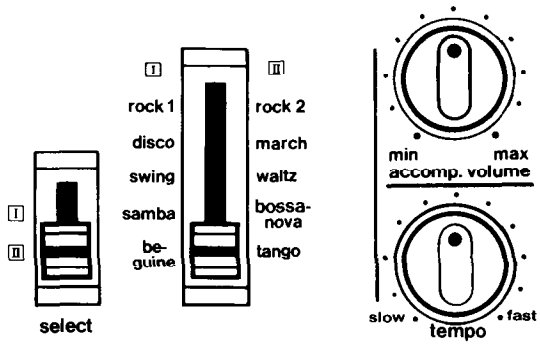

**(3) Set each switch on the Preset Sound and Sound Effect Section as follows.**

- Sound Selection Buttons → Select one suitable for the music.
- Sound Effect Switches (Sustain and Vibrato) → Choose according to the music.



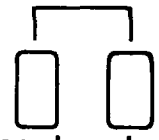
(4) Set each switch on the Auto-Rhythm Section as follows:

- Rhythm Selection Switch → Set to a rhythm that right for the music.
- Tempo Control Knob → Choose your best tempo that suits the beat of the music.
  * It is advisable to start with a slow tempo.
- Accompaniment Volume Control Knob → Set to a comfortable level.




(5) Press the Reset Button on.

(6) Press the One-Key Play Button and start playing.




- Press the button rhythmically, keeping the melody in mind.
- Either of the two One-Key Play Buttons may be pressed, or may be pressed alternately.

* After the last note, the rhythm will stop by pressing a One-Key Play Button once more. Press the Reset Button if you want to stop along the way.

If you find it difficult to follow the rhythm, set the Accompaniment Volume Control Knob to "min" or Casio Chord Switch to "off" and practice One-Key Play with a melody only.

# 4-7 Manual Memory

This is a method of storing a melody and chords by using the keyboard keys and program buttons. You can store your favorite music into the memory through this feature.

## ●Manual Memory Sequence and Process

**(1) Note Storage**

Mode Selection Switch → "record melody"
Store the notes and the musical arrangement by using the keyboard keys and the program buttons.

**(2) Chord Storage**

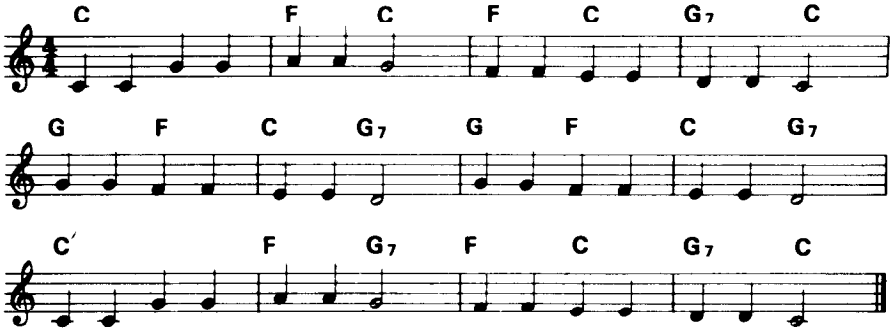
Mode Selection Switch → "record chord"
Chords can be stored by the accompaniment keys and the One-Key Play Buttons.

**(3) Note Duration Storage**

Mode Selection Switch → "record melody"
Give each note its duration while playing the One-Key Buttons.

The following operating sequence is for Auto-Play with accompaniment. The number of operations required depends on the playing style.

- Melody Guide Play of the melody only
- One-Key Play of the melody only. → Operation (1) only
- Melody-Guide Play wih accompaniment
- One-Key Play with accompaniment → Operation (1) and then (2)
- Auto-Play of the melody only → Operation (1) and then (3)

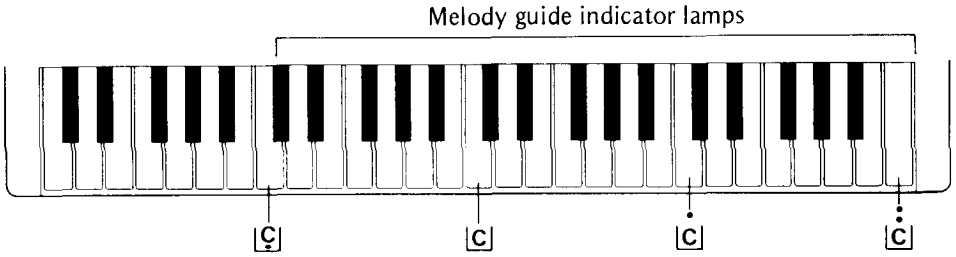
(Example) "Twinkle Twinkle Little Stars"

### (1) Note Storage

a) Set the Mode Selection Switch to the "record melody" position.
b) Delete the memory contents by pressing the Delete Button while also pressing the Reset Button.
c) Press the keyboard keys and the program buttons in the sequence shown below.

□ accomp start |C|C|G|G|A|A|G|F|F|E|E|D|D|C|G|G|F|F|E|E|D|G|G|F|F|E|E|D|
|C|C|G|G|A|A|G|F|F|E|E|D|D|C| □ end

- |C|, |G|, etc. show the keys to be pressed.
- If you press a wrong key, press the Delete Button and then the correct key. (See page 42 for details.)

* See page 40 for method of using program buttons.




* Use the upper 3-octave keyboard keys. Since there is no indicator lamp on the lower 1-octave keyboard keys, it will not light up during play.

### (2) Chord Storage

a) Set the Mode Selection Switch to the "record chord" position.
b) Delete the memory contents by pressing the Delete Button while also pressing the Reset Button.
c) Set the Casio Chord Switch to the "on" position.
   * In this case, chords are stored by using the one-finger method. Set to "fingered" when storing by playing the chords.
d) Store the chords by pressing the One-Key Play Button while playing the accompaniment keys in the sequence below. Press the End button last.

|C|×2, |F|×1, |C|×1, |F|×1, |C|×1, |G7|×1, |C|×1,
|G|×1, |F|×1, |C|×1, |G7|×1, |G|×1, |F|×1, |C|×1, |G|×1,
|C|×2, |F|×1, |G7|×1, |F|×1, |C|×1, |G7|×1, |C|×2, □ end

* "|C|×2" refers to an operation where the One-Key Play Button is pressed twice while also pressing the C major chord on the accompaniment keyboard. The name of chords will be shown on the digital display as pressed, and the number of steps will be displayed when the One-Key Play Button is pressed.
* One-Key Play Button should be pressed twice for each measure of the chord (press one too many for the last measure). See page 43 for details.

### (3) Note Duration Storage

ⓐ Set the Mode Selection Switch to the "record melody" position.

* Press the Reset Button if the display does not show "000".

ⓑ Select a rhythm suitable for the music by using the Rhythm Selection Buttons. ("Rock 1" is used in this example.)

ⓒ Start the rhythm and adjust the Tempo Control Knob to the proper level.

* It is advisable to start with a slow tempo.

ⓓ Now, play a melody by pressing the One-Key Play Button in time with the rhythm.

* Each time the One-Key Play Button is pressed a note of the tune (stored in Step 1) will be played. For a REST location, release the button for the duration of the rest. Also, press the button again in time with the rhythm after the last note comes out. (At this time, no sound is produced.) (See page 44 for details.)
* If you are not satisfied with your performance, press the Reset Button and try again from the beginning. You can start over as many times as you like.

After adjusting the tempo at Operation ⓒ of Step (3), stop the rhythm once and set the Casio Chord Switch to "on" or "fingered". If Operation ⓓ is then performed, rhythm and accompaniment will start the moment the One-Key Play Button is pressed. This accompaniment consists of chords stored at Step (2), so the note duration can be stored to match rhythm and accompaniment.

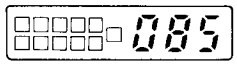
With the above, storage is complete. Now you can enjoy Auto-Play (see page 30), Melody-Guide Play (see page 33) and One-Key Play (see page 35). However, since this is a basic operating example, read the following pages for details on other various storage methods and advanced techniques.

## ●Storage Step Number (concerning the number of notes or chords that can be stored).

★ When storing, each press of a key or a button is considered as one step.

- The number of notes that can be stored is 345 steps, including the pressing of Program Button such as End Button, etc.

- The number of chords that can be stored is 201 steps. Since one measure has two steps, this means that 100 measures plus the End Button can be stored.




- The number of steps already stored will be shown on the display during storage. If you try to store more steps than allowed, "End" will be displayed and no further storage is possible.

"End" may be displayed even when the memory step display has not reached the number of steps allowed: This occurs when new storage is made without deleting previously stored items.

**(Example)** If new note storage is performed without deleting when there are already 100 steps stored, "End" will be displayed after storing 246 steps.

★ **For new storage, be sure to delete the memory contents by pressing the Delete Button and the Reset Button.**

## ●Program Button Operating Method

The tune arrangement is determined by using the following five Program Buttons. These are used when storing notes.

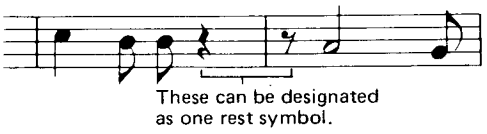
* Only the End Button is used also for chord storage.

### End Button (□end)

The End Button designates the end of the music. Be sure to finalize the note or chord storage by pressing this button.

### Rest Button (□rest)

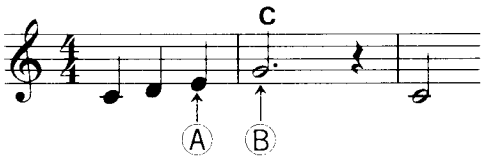
Designates a location where no note is produced during the music. Press this button at the places where rest symbols are written on the music score (𝄽, 𝄾, 𝄻, etc.).




This button only designates the location of the rest and the duration of the rest is determined by the period that the One-Key Play Button is not pressed in duration storage. Furthermore, even when two rest symbols occur between two measures as shown in the example, this can be designated as one rest symbol when no note or repeat symbol (𝄆 𝄇) are present between them. Also, a maximum of five measures of rest can be produced with one press of the Rest Button. Therefore, if, for example, the rest continues for a period of 12 measures press the Rest Button three times.

### Accompaniment Start Button ( accomp start )

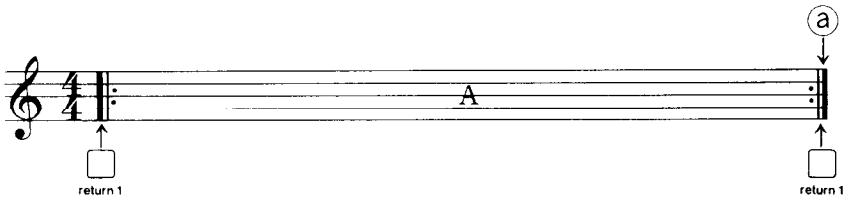
Press this button where the accompaniment (chords, rhythm, etc.) starts. For introduction (Auftakt) music as shown in the example, since the chord is formed beginning with the note indicated by Ⓑ, press the Accompaniment Start Button following the note indicated by Ⓐ.




### Return 1 Button ( return 1 ) and Return 2 Button ( return 2 )

Repeat play can be performed by pressing these buttons where repeat symbols such as '𝄆 𝄇' or '1.' are written on the music score. Return 1 Button is pressed whenever 𝄆 and 𝄇 symbols are written and Return 2 Button is pressed whenever a 1. symbol is written.

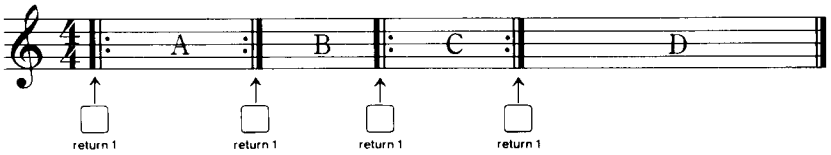
**(Example 1) When the entire music is repeated several times.**




Music sequence = A → A

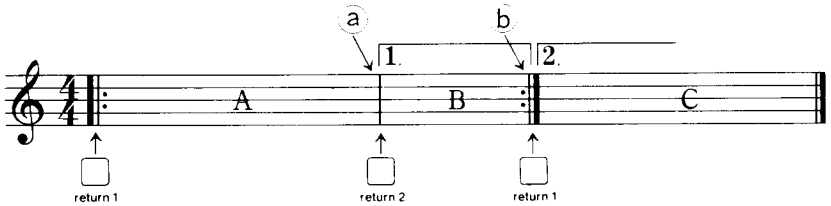
* To play three times ( A → A → A), press Return 1 Button twice at the location indicated by ⓐ.

**(Example 2) When there are repeat symbols 𝄆 𝄇 in several places.**




Music sequence = A → A → B → C → C → D

**(Example 3) When there is a '1.' symbol.**

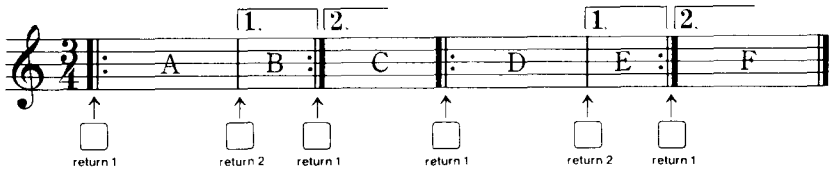



Music sequence = A → B → A → C

* Return 2 Button is not pressed at the location of the 2. symbol.

★ **Application** . . . If Return 2 Button is pressed three times at ⓐ and Return 1 Button is pressed three times at ⓑ, the play will be A → B → A → B → A → B → A → C.

(Example 4) When there are repeat symbols $\overline{1}$ in several places.




Music sequence = A → B → A → C → D → E → D → F

* Return 1 Button and Return 2 Button can be pressed any number of times within the storage step range (up to 345 steps).
* When using Accompaniment Start Button, Return 1 and Return 2 Buttons at the same location on the music score, press the Accompaniment Start Button first.
* See page 46 for examples of the use of Return 1 Button and Return 2 Button.

## ●Storage Correction

### Note Storage Correction

Correction of memory contents can be accomplished at any time even during storage or after completion of storage, provided that the Mode Selection Switch is at "record melody". Correction is performed using the following three buttons and both deletion and insertion can be accomplished.

- **Forward Button** (for ☐) . . . . . Advances one step each time it is pressed.
- **Back Button** (back ☐) . . . . . Backs up one step each time it is pressed.
- **Delete Button** (delete ☐) . . . . . Displayed step is deleted and backs up one step.

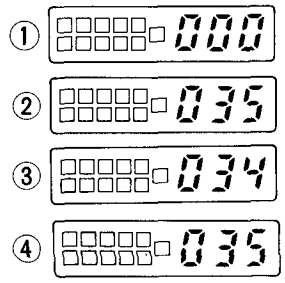
* While advancing or backing up using the three buttons, the step numbers will be displayed on the digital display. At the same time, since the notes of the steps will sound and the Melody Guide Indicators will also be lit, confirmation can be made while making corrections. In the case of the Program Buttons, the sounds are not produced but those Program Indicators are lit.

(Example 1) **When a mistake is noticed immediately during storage.**

**Operation:** Press the Delete Button once and press the correct keyboard key or Program Button.

(Example 2) **When a mistake is noticed at step number 35 after storage is complete.**

**Operations:**
① Press the Reset Button and make the digital display show "000". (The ☐ lamp is lit.)
② Press the Forward Button and make the display show "035".
③ Press the Delete Button and delete step 35.
④ Press the correct keyboard key or Program Button.



★ **Deletion/Addition Method**

**Deletion** (when deleting unnecessary storage) . . . Perform operations ①, ② and ③ of Example 2.

**Addition** (when adding left out storage) . . . Perform operations ①, ② and ④ of Example 2. In the case of Example 2, the addition is made following step 35.

### Duration Storage Correction

When a mistake is made, press the Reset Button and start over again. You can start over again as many times as you want.

### Chord Storage Correction

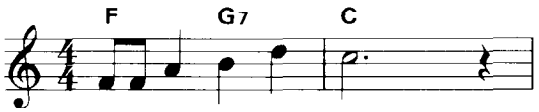
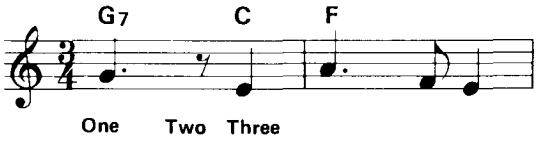
During storage, corrections can be made by using the Delete Button. Corrections cannot be made after storage or by using the Forward Button or Back Button.

**(Example) When you notice that you have stored one too many chord measures (the equivalent of two steps).**

**Operation:** Press the Delete Button twice. (The display will back up two steps and the chord at those two steps will be deleted.)

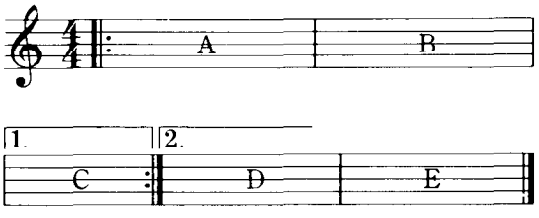
## ●Concerning Chord Storage

- Chords are two steps per measure.
  When there are two kinds of chords in one measure, each chord is stored step by step. Example 1 stores "[F] x 1, [G7] x 1 and [C] x 2". In the case of 4 beats (4/4 time) as shown in Example 1 or 2 beats (2/4 time), chords are equally divided within the measure but in the case of 3 beats (3/4 time), they are divided into 2 beats and 1 beat (Example 2).
  * Three or more chords in a measure cannot be stored.

**Example 1**

**Example 2**

***One and Two are $G_7$ and Three is C.**

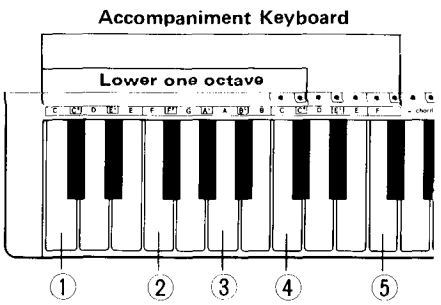
- Return 1 Button and Return 2 Button cannot be used for chord storage. Therefore, even when the notes are stored as written on the music score, they are stored in accordance with the progress of the music.
  In the case of Example 3, notes are stored in accordance with the music score, such as A → B → C → D → E and the chords are stored as A → B → C → A → B → D → E.

**Example 3**




- Chords can be stored by using either "one finger" (Casio Chord Switch → on) or by "playing the chord" (Casio Chord Switch → fingered).
  When storing by actually playing the chords (Casio Chord Switch → fingered) only the 7 chords shown on the digital display (maj, min, 7th, maj7th, min7th, dim and aug) can be stored. (When other chord storage is attempted, the chord sound comes out but the chord will not be stored.)

- In the "fingered" position, the played chord is automatically replaced with a chord which is within the range of the lower one octave on the accompaniment keyboard and is stored.




(Example) **Even when the F maj chord of ③, ④ and ⑤ is played, it is stored in the form of ①, ② and ③.**

- If a chord constructed with 4 notes such as 7th, minor 7th, etc. is played, the 5th note of that chord will be omitted.
(In the case of a diminished chord, C, C♯ or D will be omitted.)

(Example) **For Am7 (A minor 7th), C, G and A are stored.**

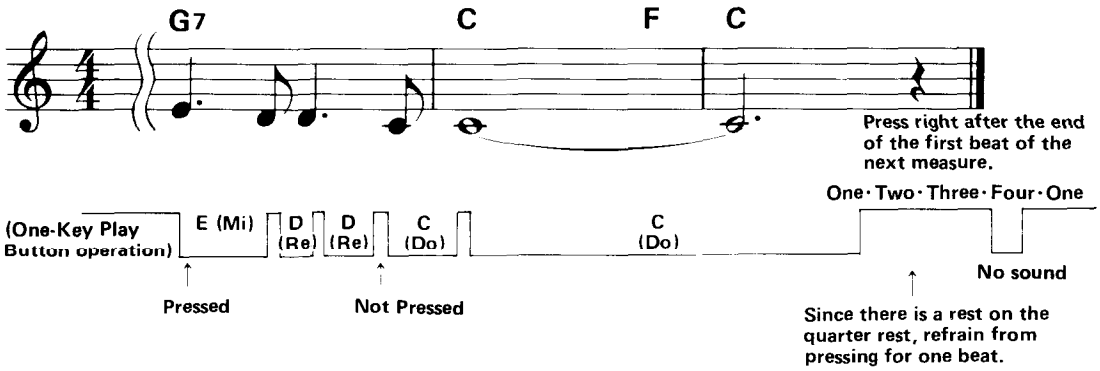
- For a tacet (locations where no chord is required), press the One-Key Play Button without playing the chord on the accompaniment keyboard. A silent location is stored and, during Automatic Play, a chord is not produced for that location only.

★ As the final step of chord storage, be sure to press the End Button just as for note storage.

## ●Skillful Endings

After the last note comes out using note duration storage, be sure to press the One-Key Play Button one more time. At this time, no sound is produced but the play ends at this point. Therefore, the timing of pressing the key determines whether the ending is good or bad.

[Ending Example]




Store another half measure of the last chord (1 step) and, if the example is followed, the root sound of the chord comes out last, which will result in an effective ending.

## ●To store two or more songs as a medley and play automatically.

(This requires a certain amount of musical knowledge.)

If they are within the alloted step storage, two or more songs can be stored consecutively and automatic playing can be enjoyed.

[Storage Method]

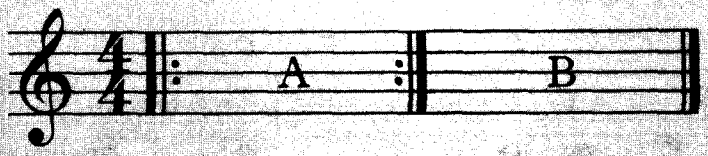
**Notes** ..... Press the Accompaniment Start Button at the beginning of the first song and press the End Button at the end of the last song. Press the Rest Button for the desired intermission between songs. (See Page 40). In other words, the entire performance is stored as if it were one song.

**Chords** ..... For intermission, interlude chords are stored only for the length of time that no notes are stored. When chords are not required during intermission, if only the One-Key Play Button is pressed without playing the chord, only rhythm play will be performed during the intermission.

**Note Duration** ..... Pay attention to putting the melody and chords together and making sure no mistake is made in the number of rest measures during the intermission.

* Automatic Play cannot be accomplished by selecting a song from the middle of a medley.

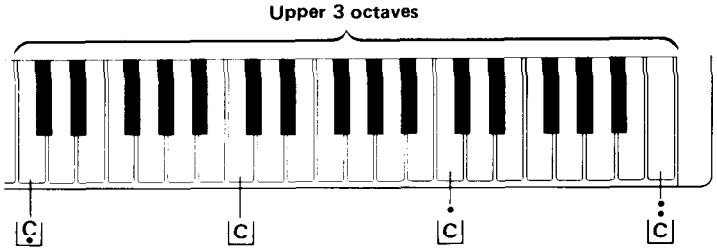
With repetition of music note duration storage using Return 1 and Return 2 Buttons, if the melody is the same, then the note duration stored last takes priority and is stored.
In the example, the music for the second A will be stored and played automatically even when the first A is stored.




Music sequence = A → A → B

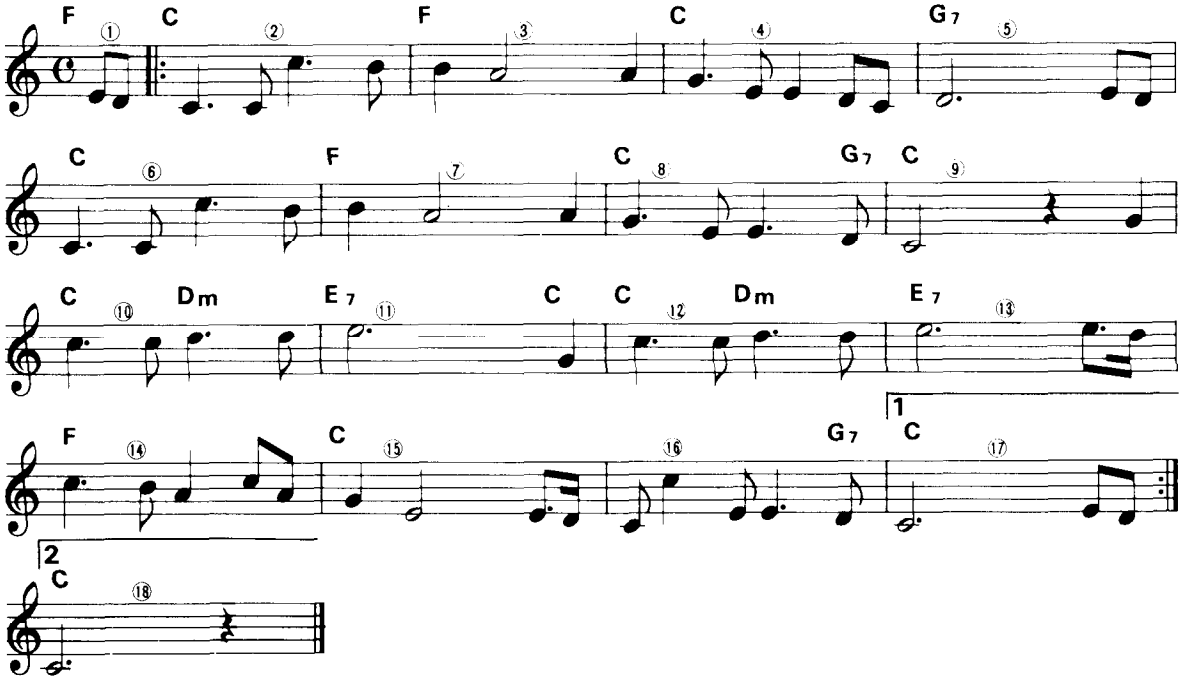
## ●Manual Storage Example

- The circled numbers on the music score or in the operations are measure numbers. Use these for reference when operating.
- The [C], [D], etc., in the operation show the name of the notes, [Ċ] means one octave higher and [C̣] means one octave lower.



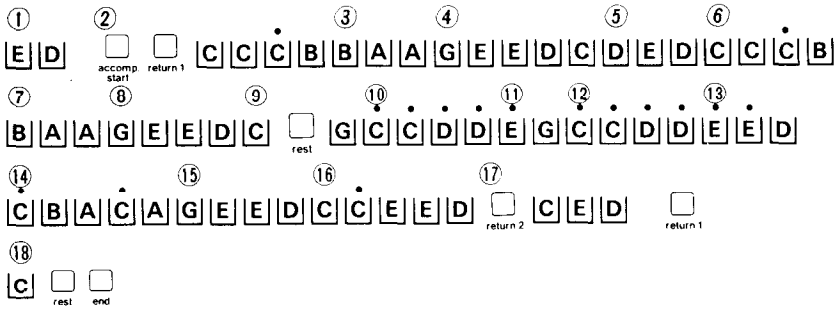

- [C], [Dm], etc., refer to chord names. Storage can be accomplished by using either one finger or fingered method.
- "[C]×4" chord operation means press the One-Key Play Button four times while playing a C major chord on the accompaniment keyboard.

<Example> "Annie Laurie"

As an introduction, accompaniment starts at measure ②. Since ‖: :‖ and ⌐1 are used, it is most helpful to understand the storage operation for repeat play.

(Operation)

Note Storage

(1) Mode Selection Switch → "record melody"
(2) Press the Reset Button while pressing the Delete Button and delete the previous storage contents.
(3) Press the melody keyboard keys and Program Buttons in the following sequence. (Circled numbers are the measure numbers.)


① ② ③ ④ ⑤ ⑥
E D accomp start return 1 C C C B B A A G E E D C D E D C C C B
⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬
B A A G E E D C rest G C C D D E G C C D D E E D
⑭ ⑮ ⑯ ⑰
C B A C A G E E D C C E E D return 2 C E D return 1
⑱
C rest end

* When designating the Accompaniment Start and Return 1 at the same location, as in measure ② given above, press the Accompaniment Start Button first.

Chord Storage

(4) Mode Selection Switch → "record chord"
(5) Press the Reset Button while pressing the Delete Button and delete the previous storage contents.
(6) Set the Casio Chord Switch to "on" or "fingered".
(7) Store chords in the following sequence.

② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑧
C×2, F×2, C×2, C7×2, C×2, F×2, C×1, G7×1,
⑨⑩ ⑩ ⑪ ⑪⑫ ⑫ ⑬ ⑭ ⑮⑯ ⑯
C×3, Dm×1, E7×1, C×2, Dm×1, E7×2, F×2, C×3, G7×1
⑰② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑧
C×4, F×2, C×2, G7×2, C×2, F×2, C×1, G7×1,
⑨⑩ ⑩ ⑪ ⑪⑫ ⑫ ⑬ ⑭ ⑮⑯ ⑯
C×3, Dm×1, E7×1, C×2, Dm×1, E7×2, F×2, C×3, G7×1
⑱
C×2, end

* Store a half measure more at the end. (See page 44).

**Note Duration Storage**

(8) Mode Selection Switch → "record melody"
(9) Rhythm Selection Switch → "beguine"
(10) Adjust the Tempo Control Knob to a comfortable level.
  * It is advisable to start with a slow tempo. Stop the rhythm after adjusting the tempo.
(11) Press the Reset Button.
(12) Now, start playing a melody by pressing the One-Key Play Button in time with the rhythm.

- The moment the One-Key Play Button is pressed, the stored chords will be played along with the rhythm. Play a melody in time with this accompaniment.
- Play is performed repeatedly as shown by 𝄆 𝄇 , 1 , etc. on the musical score.
- Be sure to press the One-Key Play Button one more time, in time with the rhythm, after the last note comes out. (See page 44.)
- If you are not satisfied with your play, press the Reset Button and try again from the beginning. You can start over as many times as you like.

* To store the note duration without accompaniment, go on to Operation (11) after Operation (9) without stopping the rhythm.

# Troubleshooting Chart

## ●Concerning the Automatic Accompaniment Function/Auto-Rhythm

| Symptom | Possible cause | Remedy |
|---|---|---|
| Rhythm not produced. | 1. Main volume is too low.<br>2. The Accompaniment Volume Control Knob is at its minimum. | 1. Turn up the main volume.<br>2. Adjust the volume to the desired level. |
| Rhythm synchro start does not function | • Keys other than accompaniment keys have been pressed (lower 1.5 octaves). | • Start on the accompaniment keyboard. |

## ●Concerning the Memory Play Function

| Symptom | Possible cause | Remedy |
|---|---|---|
| Storage cannot be done by using the MS-1. | 1. The MS-1 is not connected to the MS Jack.<br>2. Mode Selection Switch is not set to the " MS " position.<br>3. The storage method is improper. | 1. Connect the MS-1.<br>2. Set the Mode Selection Switch to " MS ".<br>3. See "MS Memory Hints" (Page 29). |
| Check sounds do not come out when storing using the MS-1. | • The Main or Accompaniment Volume Control is too low. | • Turn up the Main or Accompaniment Volume Control. |
| The Memory Step Display numbers change erratically. | • If Automatic Play is performed when nothing is stored in the memory, the display numbers will change quickly. | • Press the Reset Button. |
| Play is erratic when performing Automatic Play. | 1. Note duration is not stored.<br>2. Tempo Control is too fast. | 1. Store note duration.<br>2. Adjust the Tempo Control. |
| Although a melody has been stored, the display changes erratically without producing any sound. | • End Button was not pressed at the end when note pitch was stored using Manual Memory. | • Be sure to press the End Button last for Manual Memory. |
| Chord sounds are not produced even though chords were stored. | 1. Casio Chord Switch is set to the "off" position.<br>2. Accompaniment Volume Control Knob is at its minimum. | 1. Set the Casio Chord Switch to "on" or "fingered".<br>2. Adjust the volume to the desired level. |

| Symptom | Possible cause | Remedy |
|---|---|---|
| There are locations where no chords are stored. | 1. Chords other than maj, min, 7th, maj7th, min7th, dim or aug were stored.<br>2. Only the One-Key Play Button was pressed without playing the chords. | 1. Store chords from among there seven chords.<br>2. Press the One-Key Play Button while playing the chords. |
| Chords and melody are not synchronized during Automatic Play. | 1. Automatic play was performed using 3-beat rhythm (WALTZ, etc.) for a 4-beat rhythm (SWING, etc.) or vice versa<br>2. The chord was not stored repeatedly even though set for repetitious melody storage. | 1. Select a rhythm which matches the beat of the music (the stored note duration).<br>2. Store the chord repeatedly. (Return 1 and Return 2 cannot be use.) |
| Sounds keep coming out during storage correction. | • When the preset sound is continuous, sound will keep coming out when using the Back Button, Forward Button and Delete Button. | • This is for correction while confirming the musical interval and is not a malfunction. |
| Back Button or Forward Button do not function. | • Correction of note pitch must be performed with the Mode Selection Switch at "record melody". | • Set the Mode Selection Switch to "record melody". |
| The memory contents cannot be deleted. | 1. The Delete Button was not pressed first.<br>2. Mode Selection Switch is not set to the "record chord" or "record melody" position. | 1. Press the Delete Button first and, while pressing, press the Reset Button.<br>2. Set the Mode Selection Switch to "record chord" when deleting the chords, and to "record melody" when deleting the melody. |
| The contents of the memory (melody and chord) change or are deleted. | • Batteries are weak. | • Replace the batteries as soon as possible (See "Power Supply" on page 10.) |

## ●General and others.

| Symptom | Possible cause | Remedy |
|---|---|---|
| Sound does not come out of the speaker even when pressing the keyboard keys. | 1. Batteries are weak.<br>2. Power Switch is off.<br>3. Main Volume Control is too low.<br>4. Headphone is connected. | 1. Replace the batteries.<br>2. Turn the Power Switch on.<br>3. Turn up the Main Volume Control.<br>4. Disconnect the headphone. |
| No sound comes out when playing melody keyboard keys. | • Mode Selection Switch is set to the "MS", "record chord", etc. | • Set the Mode Selection Switch to "off". |
| No sound comes out when playing the accompaniment keyboard keys. | • Accompaniment Volume Control Knob is at its minimum. | • Adjust the volume to the desired level. |
| Noise is present. | • Noise from electric appliances such as refrigerator or washing machine. | • Use an outlet which is located at a distance from the appliance causing the noise. |
| Radio or television interference. | • When there is a strong broadcast in the area. | • Try changing the location of the instrument. |
| Distortion when volume is increased. | • Since the built-in speaker is small, when the sound range is low or the volume is extremely high, complete reproduction is sometimes difficult. | • Turn the volume down or connect an external speaker. |
| Sound is not produced when an external amplifier is connected. | 1. The Volume Control on the Casiotone is too low.<br>2. The connection cord is bad. | 1. Turn up the Volume Control.<br>2. Replace the connection cord. |

# Care of Your Unit

## 1 Avoid heat, humidity or direct sunlight.

Do not overexpose the unit to direct sunlight, place near an air conditioner, or in any extremely hot place.

## 2 Take care not to drop the unit and avoid strong shocks.

A strong shock may cause trouble. When carrying or transporting the unit, protect the keyboard and switches with soft materials.

## 3 Keep the unit free of liquids, dust, particles etc.....

Do not allow bits and pieces to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not wet the unit.

## 4 Never attempt to modify any parts of the unit.

The unit is a precision piece, made up of electronic parts. Any modification of, or tampering with, inner parts may cause trouble or accidents.

## 5 Do not use a lacquer thinner or similar chemical.

Clean the keyboard with soft cloth dampened with a mild detergent. (Soak the cloth in a detergent and squeeze until almost dry.)

## 6 Don't forget to turn off the power switch.

After using the unit, be sure to turn off the power switch. If the unit is left for many hours with the power switch turned on, trouble or accidents may occur. Also when not using the unit for a long period, remove the batteries to avoid corrosion from battery leakage.

## 7 In case of malfunction.....

When the unit does not work properly, check whether switches, connections, etc. are set correctly as indicated in the troubleshooting chart on page 49 of this manual. If the unit still doesn't work, please contact the original retailer or nearby dealer. Never attempt to repair it yourself. It may result in serious damage of components.

# Specifications

| | |
|---|---|
| **Model:** | Casiotone MT-70 |
| **Number of keys:** | 49 keys (4 octaves) (mini-keyboard) |
| **Chords:** | 8-note polyphonic (simultaneous sound: 8 notes at max.) |
| **Preset sounds:** | 20 sounds;<br>Pipe Organ, Wood Wind, Tibia, Full Tibias, Flute, Oboe, Piano, Celesta, Vibraphone, Xylophone, Jazz Organ 1, Jazz Organ 2, Chorus, Synthe. Brass, Wah Brass, Cosmic Flute, Funky, Banjo, Synthe. Bells, Chime. |
| **Sound effects:** | Vibrato, Delayed Vibrato and Sustain. |
| **Built-in rhythms:** | 10 rhythms;<br>Rock 1, Rock 2, Disco, March, Swing, Waltz, Samba, Bossa Nova, Beguine, Tango.<br>*Start/Stop Button, Synchro Start Button, Tempo Control Knob, Accompaniment Volume Control Knob, Fill-in Button, Tempo Indicator Lamp. |
| **Auto-accompaniment function:** (Casio Chord System) | Casio Chord Switch (off/fingered/on)<br>Accompaniment Selection Switch (rhythmic/arpeggio)<br>Memory Switch (off/on)<br>Octave Shift Switch (off/on) |
| **Memory play function:** | MS Memory<br>Manual Memory; Note storage capacity = Max. 345 steps<br>Chord storage capacity = Max. 201 steps<br>Auto-Play<br>Melody Guide<br>One-Key Play<br>*Program buttons: Return 1, Return 2, Accompaniment Start, Rest, End, Back, Forward, Delete, Reset, and Repeat Buttons.<br>*Memory Play Button *One-Key Play Button |
| **Display:** | Digital Display (LCD display); Sounds, Chord names, Program step number.<br>Melody Guide Indicators (LED display)<br>Program Indicators (LED display) |
| **Pitch control:** | ± 1/4 tone (± 50 cents) |
| **Built-in speaker:** | 8 cm (3-1/8") dia. x 1 (output = 1 W) |
| **Output jack:** | Output impedance = 3 kΩ<br>Output voltage = 1 V max. |
| **Power source:** | 3-way AC/DC power source;<br>AC: 100, 117, 220 or 240 V (± 10 V), 50/60 Hz, with optional AC adaptor AD-1.<br>DC: 5 D size manganese dry batteries.<br>Battery life: High performance manganese dry batteries (SUM-1) last about 15 hours.<br>Car battery: Power taken via optional car adaptor CA-1. |
| **Power consumption:** | 4 W |
| **Dimensions:** | 68 (H) x 633 (W) x 188 (D) mm (2-11/16"(D)x24-15/16"(W)x7-3/8"(D)) |
| **Weight:** | 2.7 kgs (6 lbs) including batteries |

**Design and specifications may be subject to change without notice.*

## GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

..... reorient the receiving antenna
..... relocate the computer with respect to the receiver
..... move the computer away from the receiver
..... plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

CASIO®

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